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ORISSA ECONOMICS ASSOCIATION

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EXECUTIVE BODY
1996-97

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Editorial

ALL THAT GLITTERS IS NOT GOLD

I have been associated with economics for more than 50 years. ais is definitely a long period in the life of a person—almost equal to the erage longevity of a person. And yet I find my knowledge of economics as little as it was when I was a graduate student. Marshall in his rinciples of Economics' said at one stage that 'economics deals with the er changing and subtle forces of human nature' and I will add that this man nature is so inconsistent that one cannot understand economics less one is thoroughly equipped with the knowledge of social behaviour. ll the degrees, whether Ph. Ds or D. Lits in pure economics will hardly ake any dent in the improvement of social and economic life of any mmunity unless these degrees have some social bearing.

Readers may please pardon me if I dare make a categorical atement that the dimension of change in social behaviour is so colossal at economic pundits can hardly catch such changes in sophisticated uations and models. And what is more, the changes are not regular, stematic or rythmical, nay, on the other hand, they are fitful and egular.

I am afraid, when I see some of the research findings of some of e eminent economists, not to speak of young and budding economists, ell as if I am in an "Area of Darkness". As Goethe said in his Faust, 1,

I have studied now Philosophy
And Jurisprudence, Medicine
And even, alas, Theology
From end to end with labour keen;
And here, poor fool, with all my lore
I stand no wiser than before.

As a matter of fact reams are written and tonnes are published by ny specialists, as it is said by a social scientist, a veritable deluge— ing statistics and dimensions about poverty, unemployment, squalor, ease, standard of living, pattern of consumption and so on. All this nds like a geometrical proposition with an over loaded statistics to ve or disprove a point of view. But the irony of the whole intellectual nnastics is that all of them differ widely from each other and make a sh of the gala celebration.

Against this cynical background when we probe into the grim ity, we find that economics is losing its significance to touch the life people. The magnitude of events that are taking place is quite without allel in history. As Mishan, while analysing economic fallacies,, stated, logy. The mounting spillover effects of modern industry; the havoc that follows the growth of motorised transport; the new forms of social strife following an unprecedented revolution in communications and, in its wake, a rising tide of unrealizable expectations—such developments have brought us to an era that quakes from day to day with incipient crises, and from which no man may hope to find refuge".

In these circumstances, the economic decisions taken by the economists, "without other things remaining constant" become irrelevant to improve our knowledge or remedy some of the maladies that confront the economy. And further, when there are several remedies even for one malady the economists cannot venture to announce old fashioned dogmas and assert that they are the only people who know the answer. Did not Keynes say, when there are six economists, there are seven opinions. To take a trivial example (an illustration given by Kurt Klappholz), if we are told that the cause of a man's destitution is the loss of his arms, which renders him unfit for work, it does not follow, that the only remedy is the restoration of his arms. In other words, whenever we deal with a question like this, we should not only consider the cause of destitution, but rather "what are the alternative ways of dealing with it ?" You do not have one answer for all such problems.

This means, like many other social problems, economics is multi-dimensional in character. But unfortunately, because of our compartmental thinking, our analysis is becoming fragmentary and we are trying to seek partial solutions. And what we assert to be true, may easily be shown to be untenable by revealing inadequacies in the argument or in the data. Probably a time has come when we should seek for the widest possible integration of all kinds of factors which influence an event in economics and make an indepth analysis of all those which are responsible for such changes. If we can analyse economic problems by integrating different phenomena of social behaviour, we will not only enrich economic science but develop some purposeful work in some aspects of social and economic change. Thus economic analysis should, as pointed by Boulding in another context, 'rest on a broad formulation of the study of human nature and its most fundamental propositions should be applied to all conditions of mankind to make it relevant, useful and a principal guide in the conduct of human affairs'.

Never think that you already know all,
However, highly you are appraised,
Always have the courage to say to yourself,
I am ignorant. (Ivan Pavlov)

Secretary's Report

Bimal K. Mohanty
Secretary, Orissa Economics Association

Mr. President Professor Das, His Excellency the Governor of Orissa Sri Gopal Ramanujam, Hon'ble Minister, Higher Education, Planning and Co-ordination, Orissa Sri Bhagabat Prasad Mohanty, Principal and Chairman, Reception Committee Major Srinath Sahoo, Former Presidents of the Orissa Economics Association, Local Secretary Lt. Cdr. Narottam Dass, Fellow Delegates, Distinguished Guests, invitees, ladies and gentlemen.

As the Secretary, Orissa Economics Association, I feel privileged in welcoming you all to the 28th Annual Conference of the Orissa Economics Association.

The Orissa Economics Association was founded in the year 1967-68 with only 45 members. There has been a six time increase in membership over the last 29 years of which 2 are Institutional Members, 217 are Life Members and 45 are Annual Members. Young generation of economists have shown considerable interest in the academic activities of the Association. The Association publishes a Journal—"Orissa Economic Journal" each year which contains the research articles prepared by its members and are discussed at the venue of the Annual Conference.

The Orissa Economics Association is the only State level academic forum in which various economic problems of national and regional dimensions are discussed at length. Distinguished economists, administrators, planners and businessmen participate in the deliberations and express their valued views. This year, we have taken up two topics for discussion in the present Conference.

1. Measurement of Standard of Living.
2. Tenth Finance Commission and Orissa.

While the former is highly theoretical and involves the use of sophisticated econometric tools, the latter has profound significance in the context of Centre-State financial relations.

Since 1987, we have been organising an endowment lecture in memory of Bhubaneswar Mangaraj—an illustrious teacher from Banki. Eminent economists of the State deliver their lectures on this occasion at the time and venue of the Annual Conference. Shri Baisnab Charan Parida, Professor of Economics, College of Accountancy and Management Studies, Cuttack has given his kind consent to deliver this year's Mangaraj lecture. On my behalf and on behalf of the fellow delegates, I express a deep sense of gratitude to Professor Parida for having accepted our invitation.

Finance has now become a serious constraint on the activities of the Association. It has not been possible to realise all its objectives on account of the paucity of resources. The volume of the Journal has considerably increased along with the printing cost. This year, the Association has to spend Rs. 11,550/- on printing 250 copies of the Orissa Economic Journal. We occasionally receive a maximum grant of Rs. 4,000/- from the Government of Orissa and another two to three thousand from the new members. With much difficulty, funds are arranged in order to meet the expenses on account of printing the Journal. The Annual Conference is being organised regularly in which the host College plays a crucial role. The Association taken alone could not have been able to meet all the expenses for organising the Annual Conferences.

I am extremely grateful to Sri A. K. Patnaik, President, Governing Body and Chairman, Paradip Port Trust, Major Srinath Sahoo, the Principal of the College and Chairman, Reception Committee, Local Secretary Lt. Cdr. Narottam Dass, the staff and students of the Paradip College for their tireless efforts in organising the 28th Annual Conference of the Orissa Economics Association. I really owe a great deal to all the members of the Executive Body of the Association in general and President Professor Gajendra Nath Das in particular for their kind co-operation and timely advice. I express my deep sense of gratitude to Professor Baidyanath Misra for having spared his valuable time while editing the Orissa Economic Journal. My special thanks are due to all the former Presidents and Secretaries of the Association for their invaluable advice. My thanks are due to the Proprietor and staff of the Nabajivan Press, Cuttack for having completed the printing of the Journal in time.

I am grateful to the delegates, paper writers, guests and to all the ladies and gentlemen for their co-operation to make the Conference a grand success.

Thanking you all.

Fiscal Federalism : Theoretical Issues and its Working in India

Dr. Gajendra Nath Das
Professor of Economics,
Sambalpur University, Jyoti Vihar, Burla

I thank the members of the Orissa Economics Association for choosing me to preside over its twenty-eighth annual conference. I would like to take this opportunity to share with you some on the theory and working of fiscal federalism in India.

I

The ever-increasing budgetary difficulties of different layers of government in India and of other decentralized governments in a large number of countries have generated a renewed and serious concern with the problem of inter-governmental fiscal relations. This increasing interest in the subject has led over the past few years to a growing body of economic literature on fiscal federalism. A comprehensive reevaluation of the fiscal structure is under way in countries with diverse forms of government and at widely different stages of economic development. In a federal system, the fiscal functions of the public sector are divided among three levels of government—the federal, the state and the local, each one having a different set of taxing powers and expenditure responsibilities.

Richard Musgrave pioneered the development of conceptual framework for viewing the functions of the public sector as a whole. The public sector has three primary economic functions to perform; namely—to ensure an efficient pattern of resource use, to establish the most equitable distribution of income and maintain the economy at a high level of employment with reasonable degree of price stability. The federal structure of the public sector promises the greatest success in resolving the allocation, distribution and stabilization problems.

In a federal system, government cannot dictate one another's decisions but they seek to affect them through a process of influence.

persuasion and bargaining. All countries contain people with deffering and often conflicting demands and different abilities to achieve them. The function of the government is to mediate the conflicting demands and to make and execute collective decisions in the fields in which public policy is called for.

In his pioneering study of federalism, Kenneth C. Wheare defined federalism as "the method of dividing powers so that the general and regional governments are each, within a sphere co-ordinate and independent". As against this approach of political scientists, economists, in their early writings, recognised the interdependence among the different layers of government. Ursula K. Hicks has claimed that, in the modern world, federal systems have generally abandoned co-ordinate federalism and moved towards cooperative federalism in which the relations between the centre and the unit governments are much closer. From a political as well as economic standpoint, a federal form of government thus offers a way to realize the advantage of both centralization and decentralization. However, from an economist's point of view, federalism refers to decentralization of public sector which provides mechanism through which the levels of provision of certain public goods and services can be tailored in accordance with the tastes and preferences of people belonging to different regions, while at the same time reaping the advantages of economies of scale. Thus, fiscal history throughout the world has convincingly demonstrated both the advantages of "size" and gains from decentralisation.

Strong justification for federalism may be derived from economic analysis relevant to three basic economic functions—allocation, distribution and stabilization. Wallace Oates has examined the relative strength of centralized versus decentralized governments in performing these basic economic tasks of the public sector. He has demonstrated that central government possesses the comparative advantage in the performance of the distribution and stabilization functions as well as part of the allocation function. However, the regional government is most efficient for performing the remaining significant portion of the allocation function.

II

A major proposition of welfare economics is that a perfectly competitive economy will, under certain assumptions, secure a Pareto-optimal allocation of resources. Governments interfere with the allocation of resources in situations where the market is far from perfectly competitive or where the necessary assumptions are not met. Musgrave and Musgrave have observed that not all governmental interventions in resource allocation can be explained in terms of regulating imperfect markets, of arranging for externalities to be taken into account or of supplying public goods. Besides, the public sector has a tendency to encourage the consumption of merit goods and to discourage the consumption of demerit goods.

The modern theory of public goods has been developed through the pioneering contributions of Musgrave, Samuelson and Buchanon. Because of the property of joint consumption and possibility of non-excludability, these goods cannot be efficiently provided by private markets thereby establishing on a priori case for considering public provision. All public goods, however, may not be jointly consumed on a nation-wide basis.

Public goods may be categorised as national, regional and local in nature. The federal government provides the national public goods and services that benefit the whole national population. A regional public good is characterised by joint but unequal consumption of good's benefit across political jurisdictions and it should be provided by the state government. A local public good is characterised by joint and essentially equal consumption within a local government's political jurisdiction. These goods with minimal inter jurisdictional externalities should be the responsibility of local governments. A multi-level government is structured from the point of view of ensuring an efficient supply of public goods and services.

Local public goods may be provided in accordance with the tastes and preferences of the people of the jurisdiction. According to Charles Tiebout, in a system of local government, a consumer can to some extent select his place of residence, a community that provides a fiscal package well suited to his preferences.

The preferences of consumers for any public good are unlikely to be revealed by any process that attempts to link them to individual contributions. Hence, Samuelson pointed out that they would have to be ascertained through a mechanism such as the voting system, though citizens might also use such activities as lobbying and joining pressure groups. Musgrave & Musgrave have noted that the political mechanism is imperfect and its results are likely to lead only approximately to the optimal budget choice.

The Tiebout model offered an alternative mechanism for preference revealment at least for local public goods. If consumers are mobile among communities they can choose the community which offers a mix of local public goods and taxex best suited to them. By this locational choice process, sometimes called "voting on foot", consumers reveal their preferences for local public goods. Thus, population mobility may significantly improve resource allocation as people "vote on their feet" by moving to jurisdictions in which their public goods preferences are most fully satisfied. There would be a tendency for persons of similar preferences to congregate together and the nation's residents would locate themselves in an efficient manner.

Fiscal economists have argued forcefully that there should be a single nation-wide redistribution policy and that this should be formulated and implemented entirely by the federal government. The main reason for this concerns the mobility of individuals among the jurisdictions. If one jurisdiction attempted to undertake stronger redistributive policy than others, there would be an incentive for the poor to migrate into that jurisdiction and the rich to migrate out. The policy would be ultimately self-defeating. Thus, the scope for redistributive programmes is limited to some extent by the potential mobility of residents. This suggests that since mobility across national boundaries is generally much less than that within a nation, a policy of income redistribution has a much greater promise of success if carried out at the national level.

It is widely believed that the federating units have no part to play in the stabilization function and it should be left to the federal government which holds the comparative advantage to perform it. The federal government is in an advantageous position to make good use both of monetary and fiscal policies in maintaining the economy at high levels of output with reasonable degree of price stability. Cyclical movements in aggregative economic activities are largely national in scope and hence can best be treated by counter-cyclical policies operating on a nation-wide scale.

The foregoing discussion clearly demonstrates that the federal government should accept the primary responsibility for achieving the most equitable distribution of income, for stabilizing the economy and for providing the national public goods. The regional governments should supply those public goods and services which are of primary interest only to the residents of their respective jruisdictions. Thus, federalism, in economic terms, may be described as the optimal form of government.

III

The use of inter governmental transfers is an important feature of fiscal institutions in a federal system. Financial transfers from the federal to lower level of governments provide a very useful tool for bringing about inter governmental fiscal coordination. These transfers can be used to persuade, to induce and even to compel, if necessary, the regional governments to act in a coordinated fashion.

Two major policy issues are involved in formulating a satisfactory system of grants or transfers. First, it is necessary to determine the purpose for which grants are to be given and secondly, it is necessary to decide which type of grant is most appropriate for each purpose. Grants from higher to lower levels may be given either for efficiency or for equity reasons. Oates has pointed out that the system of grants-in-aid has attempted to achieve two other goals—the equalization of fiscal efforts across jurisdictions and the achievement of a minimum level of each service throughout the nation.

Broadly grants may be of two types—general or unconditional grants and specific or conditional grants. Unconditional grant has no condition in regard to the manner and direction of its spending and the recipient government can employ the grants according to its own set of priorities. Conditional grants are tied in some way to the behaviour of the recipient government. A conditional grant may be provided with either a matching or non-matching formula. Matching conditional grants in turn comes in closed-end and open-end varieties.

The magnitude of grants may be related to some characteristics of recipient government. It may be related to the "fiscal capacity" of the region or the "needs" of the region. Musgrave has suggested that other index which might be used to allocate funds is "tax effort". By this is meant the extent which the government is actually obtaining the tax revenue relative to its capacity.

An important issue in a federal organisation is the problem of fiscal mismatch between revenue sources and expenditure functions vertically across different layers and horizontally among different jurisdictions. Vertical fiscal imbalance arises due to a disproportionate arrangement of the revenue sources vis-a-vis expenditure obligations by the level of government. This imbalance is present in all federations of the world and has to be corrected by making resource transfers from the centre to the states.

When fiscal imbalance occurs between different federating units in a federation, it is called the problem of horizontal fiscal imbalance. This type of imbalance is inevitable mainly because of diversity in economic structure and levels of economic development of different regional units which determine on the one hand varying degree of fiscal capacity and on the other hand expenditure needs. Thus, the combined operation of these two factors creates horizontal fiscal imbalance. These imbalances necessitate the federal fiscal assistance to sub-central government units.

There has been a long-standing debate among the federal finance theorists regarding the objectives of federal transfers. The inter-governmental transfers are designed to meet goals of either equity or economic efficiency. That is, they may be given to encourage particular types of expenditures by lower levels of government or to increase their purchasing power. James Buchanon is a staunch supporter of equity approach while Anthony Scott is a strong advocate of efficiency objective.

Equity refers to the distributive aspects of economic activity. Different persons have different notions of distributive justice. But there is almost a consensus regarding two different concepts of equity, namely the horizontal and the vertical equity. The concept of equity used here is in fact, horizontal fiscal equity.

B. P. Adarkar and some later fiscal economists took their concepts of fiscal equity from the utilitarian approach to public finance that was developed by A. C. Pigou. R. N. Bhargava has suggested a more thorough-going application of the same idea. Essentially the formulation extends the concept of diminishing marginal utility to the behaviour of the government. Bhargava suggests that the state should tax according to the principle of least aggregate sacrifice whereas the central government should discriminate in its scheme of taxation in order to make the marginal sacrifice of state plus central taxation of all citizens equal.

James Buchanon has put forward a strong argument in favour of unconditional transfers on equity grounds. The equity problem for Buchanon is one of devising a tax-and-expenditure programme that ensured that individuals situated similarly shall be similarly treated. But this raises special problems in the federal context, because of the separate taxing and spending activities of the federating states and the federal government. To deal with this, Buchanon uses his concept of "fiscal residuum" (taxes minus benefits). He argues that this residuum is the relevant magnitude for decisions about tax policy. Equity requires that the central fisc be used to equalise fiscal pressure on individuals situated similarly irrespective of the particular region in which they might live.

This approach to equalization relating the central fisc directly to individual has, however, one serious disadvantage, it is less federalist and more centralist in outlook.

In his original paper Buchanon argued that his proposals would not only ensure fiscal equity but would also be compatible with efficient use of resources. Anthony Scott holds the view that within a federal state complete overall horizontal equity is not achieved chiefly because its achievement is not prime goal in a federation. Scott also disagrees with Buchanon's argument that the transfers given to equalize fiscal residuum, by avoiding fiscally induced distortions would also enhance efficiency. Scott argues that in a poor region the returns to factors of production tend to be lower than the corresponding returns in the richer states. Hence, the GDP will be the highest when the factors of production move from the poor to the rich region. However, if the federal government transfers resources from the rich to poor regions it would retard the rate of growth of national product. According to Scott such transfers on equity consideration amount to "subsidizing inefficiency". He, however, argues that equitable transfers could lead to higher growth in cases where income differences of the states, for some reason, do not reflect resource endowments.

The differences in revenue-raising capacities and variations in the unit costs of providing public services are two important sources of inequity which necessitates inter governmental transfers in all federations. A number of attempts have been made to operationalise the transfer formula devised to overcome these two sources of inequity. Hicks favours grants to be given according to needs. The Commonwealth Grants Commission in Australia recommends general revenue sharing to offset deficiencies in revenue capacity and variations in unit costs. The deficiency in revenue capacity is offset through unconditional grants in the Canadian federation. Musgrave considers a number of alternative schemes to equalise various fiscal parameters of the states and examine their allocative implications.

IV

In many respects, Indian federation differs from the developed federations and therefore, the theoretical contributions discussed above are relevant to Indian fiscal federalism only to a degree. There is a virtual unanimity that the Indian constitution has a strong centripetal bias. The unsatisfactory status of fiscal tiers below the state level implies the factor in operation against decentralisation. Another important aspect of centripetal bias is seen in the distribution of fiscal powers between the federal and state governments. The uneven distribution of fiscal powers has prompted some observers to call India a quasi-federal country. Over the years, the actual working of the fiscal federalism in India seems to have caused a continuing increase in the degree of centralisation. Gulati and George have pointed out the central encroachment into the state's areas by transferring some of the activities in the state list in to the concurrent list through constitutional amendments and increase in the centre's share of spending on concurrent activities.

Chelliah has pointed out that in an economy with wide inter-regional disparities in the levels of living, a higher degree of centralisation may be necessary to ensure balanced regional economic growth. Ashok Mitra, however, asserts that centralisation has resulted in both the deceleration in the rate of growth of the economy and accentuation of income inequality.

Both the vertical as well as horizontal fiscal imbalances exist in India as in the case with other federations. Some developments in Indian federalism has led to an increase in vertical imbalances over the years. The horizontal imbalances have not shown any declining trend over the years.

The fiscal transfers from the government of India to the federating states are effected through the recommendations of the Finance Commission, the Planning Commission and other discretionary grants and loans. The constitution of India provides for the appointment of the Finance Commission every five years or earlier to resolve the problem of fiscal imbalances in an objective manner. The Finance Commissions which have made recommendations so far have commanded widespread respect and their major recommendations have been accepted by the government. But the working of these Commissions and the approach and methodology adopted by them in formulating their recommendations have come in for scathing criticisms.

Assigned taxes are levied and collected by the Centre and entirely passed on to the states. But the states have not been happy with the way tax rental arrangement has worked. Moreover, the states have complained that the federal government has not adequately exploited the taxable bases under Article 269. Non-Corporate income tax and union excise duties constitute the shared taxes and the relative shares of the centre and the individual states are determined by the Finance Commissions. As regards distribution of shared taxes, three criteria namely, the relevance of the contribution factor in distributing the share of income tax, the relevance of backwardness factor and the appropriate indicator of backwardness have been adopted by different Commissions. These criteria have been a matter of great controversy. The Finance Commissions have recommended grants-in-aid of revenues to fill the estimated post-devolution gaps in the non-plan revenue accounts of the states and to enhance the levels of specified public services in the states where these services are inadequate. This gap-filling approach has been subjected to serve criticisms. Conceptualisation and measurement of "revenue capacity" and "expenditure needs" of states are essential if federal transfers are accepted as the means to offset the fiscal disadvantages of the states. The criteria adopted for distribution shared taxes are different from the principles adopted for grants-in-aid. The tax devolution has been recommended mainly on the basis of general economic indicators whereas grants-in-aid has been given to offset the residuary fiscal disadvantages of the states as quantified by the Commissions.

Grants and loans constitute plan transfers from the government of India to the state governments. Until 1969 the plan assistance was largely schematic and discretionary. Since 1969 the assistance is allocated on the basis of a modified version of the Gadgil formula. According to the procedure prevailing currently, after earmarking the assistance for the special category states the resources available for distribution are allocated to the major states with weights assigned to various factors and categorisation.

The inter-governmental transfer schemes have been criticised mainly on the ground that different agencies transferring central resources with overlapping roles result in wasteful duplication in functioning. Again, the general purpose and specific-purpose transfer schemes seem to have adversely affected the incentives on revenue and expenditure decisions of the states resulting in the states providing different sets of estimates to the Planning and finance Commissions.

The fiscal economists in India have expressed their concern about relegating the Finance Commission, a statutory body, to a much diminished role and the emergence of Planning Commission, a political body, as an important dispenser of funds. The dichotomous functioning, sometimes at cross purposes, of the two Commissions has made it difficult to evolve a rational criterion for inter-governmental transfers. Hence, there is the imperative need for institutional reform. From time to time, the Indian scholars have given proposals for reforming the institutional arrangements. Some have argued in favour of making the Finance Commission a permanent body and all current transfers should be effected through it while the Planning Commission should be responsible for all capital transfers. Some feel that the case for a permanent Finance Commission is not strong if a cell is established to conduct continuous studies on federal finance in the Planning Commission. Others have underlined the need for two Commissions to function in tandem in coordinating resource transfers to states. The precondition for this is that award periods and plan periods must be coterminus so that it will be possible to take a view of resources and requirements, plan and non-plan, at both levels of federation in an integrated manner. The studies dealing with the effects of federal transfers in India have been mainly concerned about their equity implications. Gulati and George have argued that the federal transfers in India have exhibited a regressive bias.

The planning Commission has come a long way from the fifties when Jawaharlal Nehru gave it great prestige and power and it has inextricably linked with the formulation of economic policies that guided the economy. Right, from the beginning it was seen as an advisory body and to give independent views. But things have changed a great deal now. The Commission is said to have become a parking place for political personalities and senior officials. Time has substantially diminished its credibility. The government should have a fresh look at the composition of the Commission which should have the courage to give independent views and formulate long-term strategy for economic development of our country.

The World Bank's Countrv Economic Memorandum on India points out a few inherent shortcomings in the existing centre-state transfers which discourage fiscal discipline at state level. First, the Finance Commission determines grants on the basis of revenue short falls of states. This leaves little incentive for states to increase tax revenue. Second, in the case of several states the central plan loans are far more than their plan capital expenditure. That means, these states actually borrow from the centre to pay salaries or incur other revenue expenditure. Third, the planning Commission's policy for founding state projects is such that most states try to commission new projects rather than complete existing ones, several of which can be completed with small investments which in turn can generate a flow of income for the state economy. Fourth, the writing off or unconditional financing of state loans by centre has created the hope for future debt relief among states affecting the desire to keep the fiscal defict down. If the government of India wants to improve the financial position of states, it should remove these loopholes in the system of centre-state transfers.

V

Under an unprecedented grim fiscal situation at both the federal and state levels, the Tenth Finance Commission (TFC) had to frame its scheme for central transfers for the award period 1995-200. Although the terms of reference for the Commission were sufficiently ambiguous to give rise to doubt about the scope of its exercise, yet the Commission has confined the scope of its exercise to the non-plan revenue account. Like its predecessors, the TFC has come out with projections of revenues and expenditures in the non-plan account at both levels. The projections are based in part on optimistic expectations and in part on pious exhortations. The Commission has emphasised the importance of greater fiscal discipline on the part of the different layers of government if the targets are to be achieved.

High levels of tax evasion in personal income taxes and in excise duties have seriously jeopardised the revenues that the states could expect to get from the two sources. The Commission's silence on the importance of curbing evasion in improving receipts is a matter of much disappointment.

Compared to the Eighth and the Ninth Commissions, the TFC has reduced the income tax share for the states to 77.5 percent and has increased the excise share to 47.5 percent. In the net, taking two taxes together, there is no increase in the state's share. The recommendation of the TFC to reduce the income tax share of states from 85 to 77.5 percent is based on the primary consideration that centre being the authority which levies and administers the income tax "should have a significant and tangible interest in its yield". The TFC has adopted identical criteria for the two shareable taxes—income tax and excise duties. In the process it has eliminated collection as a factor in income tax sharing. Progressivity in horizontal sharing is better in the TFC than in the Ninth. Compared to previous Commissions, special category states have been distinctly benefited in the TFC. The TFC has not departed from the "gap-filling" approach of its predecessors and it has recommended grants under article 275 to fill the residual gap. Thus, it has failed to distinguish fiscally imprudent states from the fiscally disadvantaged ones. The Commission is to be congratulated for its recommendations for upgradation and special problem grants as well as grants to local bodies. It has proposed a National Calamity Relief Fund for dealing with calamities of "rare severity" and this represents an excellent initiative. It has recommended debt relief to the states under "high fiscal stress" for one reason or another, subject to fulfilment of certain conditions.

With a view to ending the tension between the federal and state governments, the TFC has suggested an alternative devolution scheme in vertical resource sharing. It would be in the interest of better centre-state relations if all central taxes are aggregated and a certain percentage devolved to the states—It would not only make the vertical sharing simple and transparent but would also give greater freedom to the centre in formulating tax policy in an integrated manner. The alternative formula would also mean greater flow of resources to the states since they would be able to share fully the buoyancy in overall tax receipts.

The Commission's specific proposal is that 29 per cent of the aggregate central tax revenues should be distributed among the states and this vertical sharing of resources should be reviewed once in every 15 years. The Commission had arrived at the figure of 29 percent on the basis of past trends. Since the new formula would necessitate a constitutional amendment, the Commission had recommended that the alternative scheme should be brought in to force from April 1, 1996 whereas its other recommendations took effect from April, 1995. But due to some unavoidable reasons, the alternative scheme has been put off for now and cannot be operational from April 1996 as suggested by the Commission.

The scheme has already initiated a debate among the fiscal experts regarding vertical sharing of resources and let us hope that a broad consensus would be arrived at in the near future.

New Dimensions of Development Banking in India

With Special Reference to Orissa

Prof. B. C. Parida
Professor of Economics, CAMS,
Cuttack-753 007

Mr. Chairman, Chairman, Reception Committee,
Chief Guest, Distinguished Delegates, Ladies & Gentlemen.

I am grateful to the members of the Orissa Economics Association for asking me to deliver the 'Mangaraj Memorial Lecture', this year. Mangaraj Memorial Lecture was instituted in the year 1986 in the Economic Conference held in Banki, when I was the President of the Association. After a decade I have been assigned the task of delivering the lecture. At Banki I gave my lecture on "Challenges of the Development Banking in India and the Orissan Perspective". After a decade of progress, achievements and failure of Development Banking again I place before you the new directions of Developed Banking and the problems confronted in financing development projects in the changed scenario ot fiscal correction, privatisation, deregulation and finally liberalisation.

Introduction :

Any scheme of devolution of resources from the Centre to the States comes through three sources such as statutory or budgetary transfer as decided by the Finance Commission, Plan transfer of resources the terms of which are determined by the Planning Commission and the institutional finance which comes to the States through All India Financial Institutions and is determined by the Authorities of these institutions. This channel of resource transfer differs from the plan and budgetary transfer in the sense that here the people, the entrepreneur and the Govt. get those finances for their projects and if they succeed in implementing the projects timely resources are wanting for them.

They can become the master of their own property and reshape their economic backdrop given the will and the determination to see a project completed timely and fruitfully.

Development Banking as Defined :

The concept of development banking has two aspects. In its restricted aspect it is a bank which supplies finances for development. These banks are not like ordinary commercial banks in three ways. First they do not accept deposits from the public as ordinary banks do. Secondly they provide mainly long-term and medium term finances. Thirdly they are not only supplier of credit but also, promoter of economic development by promoting investment and enterprise in their chosen spheres. This promotional role may take variety of forms like provision of risk capital, underwriting of new issues, arranging for foreign loans, identification of investment project, preparation and evaluation of project reports, technical consultancy, market information and the like.

In the broad sense they include all types of banks because in modern times each and every bank beginning from IBRD upto Asian Development Bank abroad, and Commercial banks in the country perform the double functions of providing credit and promoting economic development. The success of economic development depends to the extent of mobilisation of resources, investment and the operational efficiency and discipline displayed by the various segments of the economy. In a sense all the banks are development banks.

As said by Prof. Diamond, financial Institutions are not passive instruments of economic activity. With dynamic management and adequately permissive environment of available opportunities and of favourable policies, they can be active engine of economic development. Therefore liberally interpreted all the banks are development banks as they promote economic development. Here we have accepted the restricted meaning of development banking in that they are different from commercial banks by not accepting deposits and by giving long term and medium term finance for promoting economic development.

Objectives of Development Financial Institutions :

The objectives of the Development financial institutions are many and vary from country to country depending on their special economic scenario but however whether banks are International, Asian or local they perform the following functions.

(a) They promote Industrialisation by giving finance, technology and consultancy, (b) they promote entrepreneurship, (c) accelerate the process of balanced regional development, (d) activate the capital market, (e) nurse growing the sick industries & (f) finally they undertake research and development activities for ensuring better development of the economy.

The Structure of Development Banking —Then and Now in India:

Previously we had only development banks. Some of these banks aimed at promoting industrial and some others specialised in promoting agricultural development. Among the all India development banks we have (i) I D B I. (ii) I F C I , (iii) I C I C I , (iv) S I D B I and (v) I R B I In the state level we had S F C s and S I D C s which are called as Regional Development Banks. So far as Investment institutions are concerned L I C, G I C and U T I are the foremost institutions. They were all performing the functions of development banking.

But recently certain specialised Institutions have developed otherwise known as Specialised Financial Institutions. Some people call them Financial Intermediaries. They serve the increasing financial needs of commerce and trade in the area of venture capital, credit rating and leasing.

(a) Risk Capital and Technology Corporation of India (RCTC) was formed in 1988. It provides technology finance with special emphasis on substantial innovative technology, products processes, market services, technology upgradation and energy conservation. (b) Technology Development and Information Company of India (TDICI) is a venture finance company, It sanctions project finance to new technology venture (c) Infrastructural Leasing and Financial Service Limited. It started working in the year 1988. The Company finances the major projects in the power and transport sector. It has made significant progress in the commercialisation of infrastructure projects. It is associated with various Central and State Government agencies for developing infrastructure projects in roadways, power generation and telecommunication, water supply and water transport etc.

In the field of investment banking it has undertaken merchant banking activity and has played a major role in structuring the sale of marketable securities to project finance requirements of the corporation units. It is actively engaged in the money and gilt aged market for trading in Govt. securities, bonds of public sector undertakings, corporate debentures and units. This is a very novel field for development banking in the country.

(d) The Credit Rating Information Services of India Ltd. (CRISIL). This is a credit rating agency. This agency undertakes the rating of fixed deposit programmes, convertible and non-convertible debentures and also credit assessment of companies. By the end of 1993 March it has rated more than 558 debt instruments issued by more than 400 companies both Private & Public sectors. It has developed CRISIL cards to provide information to Indian Companies. This service provides detailed information about the business of a company, its share holding pattern, key management personnel, plant location & host of other information including major competitor & lender of the company. Apart from rating debt instrument it has also rated commercial rated programme and has completed credit assessment of hundreds of companies. It has also launched banking rating services of both private and public sector banks. The credit rating appraisal of this agency has got international recognition by similar agencies in Malayesia, Israel, Indonesia, Pakistan & Srilanka. Another credit rating agency namely Credit Rating Agency of India Ltd. has also developed. It is otherwise known as Information Credit Rating of India Ltd. which rates debt instruments of financial manufacturing companies.

(e) Stock Holding Corporation of India Ltd. :

This corporation has been sponsored by seven all India financial institutions IDBI, IFCI, ICICI, IRBI, LIC, GIC & UTI. This corporation handles the market operation & provides custodian service to mutual funds of these companies. The Govt. of India has directed the corporation to cover all public sector banks, all subsidiaries & mutual funds set up by the public financial institutions and public sector banks.

(f) Besides these developmental financial institutions four other financial corporations have developed like Housing & Urban Development Corporation of India (HUDCO) to give loans to individuals, institutions and lower income groups in rural areas for building houses, improving the quality of construction, promotion of appropriate technology, improve the skills and economic conditions of building artisans. Secondly Housing Development Corporation has been set up to finance the individuals in middle and lower income groups for construction & purchase on ownership basis of residential houses all over the country. Shiping Credit & Investment Company of India (SCICI) also gives loans for the development of shiping and fishing industries. Lastly Govt. has set up Tourism Financial Corporation of India to provide financial assistance in form of rupee loans, direct subscription to equity including under-writing and leasing of companies, concerned with tourism industries. The EXIM bank also undertakes operation of the international finance wing of the IDBI and provides assistance to exporters and importers including providing refinance to the commercial banks and financial institutions against their export, import finance activities.

Recent Progress of The Development Bank in India :

(a) IDBI—Restructuring of share capital. It is the apex institution of the industrial finance of the country. The Economic Survey of India

States that the following changes have been made in the structure & function of IDBI. An ordinance promulgated in October 1994 envisages restructuring IDBI share capital & empowering IDBI to raise equity from capital market. It has also been proposed in the budget that IDBI should be decentralised on regional basis.

(b) Prudential Norms—Following the Narasimham Committee's recommendations R B I in 1994 crdered prudential norms to be followed by Five D F Is like IDBI, IFCI, ICIC, IRBI and EXIM Bank. These DFIs were required to achieve a four percent capital adequacy ratio by March, 1994.

DFIs abroad were required to follow 8 percent capital adequacy ratio by 1995 and others by 1996 March. I D B I has expanded the scope of venture capital scheme to include a wider spectrum of projects. Both new technology and new products and processes with high element of risk potential norms will be covered.

National Stock Exchange :

It has taken the lead to set up the NSE with equity participation by financial institutions and banks. It has also promoted Investor's Services Limited (ISL) a company providing share registry services and acting as transfer agent. It has initiated steps for promoting a commercial bank, a mutual fund and a stock brokering firm.

ICICI has started project advisory services and has also promoted for a new company for providing share registry and transfer services to investors. It has floated a mutual fund and started a commercial bank in the private sector.

SCICI is financing credit for port facilities, trasportation, power generation and telecommunication.

IRBI has for the first time ventured into management of public issues. It has also envisaged the setting up of a reconstruction assistance fund. This fund will meet the special financial needs of units to salvage and rehabilitate which are not financed by others.

SIDBI took over new initiatives such as extension of foreign currency loans to export-oriented units and support to NGO's for promoting self-help by the rural poor. It has also signed MOU's with five public sector banks for jointly extending direct assistance to Small Scale Industries.

The DFIs have rationalised their interest rate structure in line with over all economic environment. The Big three like IDBI, ICICI and

IFCI have introduced a variable-interest-rate-loan scheme for the first time in the country. They have revised their minimum-term-lending-rates as per the credit policy of the R B I.

They have taken all pains to mobilise funds from domestic as well as international markets.

So far as other recommendations of Narasimham Committee are concerned the ownership pattern of the DFIs should be broad based, more of autonomy should be given to the DFIs in matters of internal administration, the professionalisation of the Board of Management and injection of an element of competition in term-lending finance in providing greater choice to borrowers. They should raise their funds from the capital markets at market related rates. While sanctioning loans they should be guided by professional appraisal of the technical and economic aspect of the project evaluation of the promoter's competence and economic integrity. They should supervise their own loan implementation and they should leave consortium financing. They should concentrate on refinance than on direct lending. And finally DFIs should start extending loans for short periods for working capital requirements.

NABARD :

NABARD is the apex development bank so far as agriculture is concerned. It serves as a refinancing institution for all kinds of production and investment credit to agriculture, small scale industries and rural artisans with a view to promoting integrated rural development. It gives all types of credit to State Co-operative Banks, LDBs, and long term loans to State Governments and other institutions approved by the Central Govt. Recently NABARD has also initiated the process of drawing up of development action plans for co-operative credit institutions for revamping the co-operative credit structure in order to make it viable and self sustaining. According to Economic Survey of Govt. of India the credit given by RBI to NABARD for credit support to seasonal agricultural operation units was enhanced by more than 400 crores of rupees. To avail refinance from NABARD State Co-operative banks and RRBs may require to have a minimum recovery rate of at least 40%. This eligibility condition has been deferred upto June 1995. This will help many areas in which credit is constraining agricultural production.

So far as insurance sector is concerned, on the recommendations of the Malhotra Committee, the Govt. is thinking of allowing the entry of private insurance company. At the State level we have State Financial Corporations and State Industrial Development Corporations which act as Regional

Development Banks. They are the main catalytic agents for financing industrial development.

PRESENT PROBLEMS OF DEVELOPMENT BANKING IN INDIA

(a) DFIs and Narasimham Committee :

Development Financial Institutions have been asked to maintain capital adequacy norms of 4% and conform to all the norms of provisioning so far as asset classification is concerned. This has put the development financial institutions into strait jacket. Developmental finance means concessional finance. As per the new guidelines their decline in profitability is not because of acceptance of social obligations of lending to some sectors at concessional rates but because of deterioration of asset quality. This contradicts the programme of project implementation in backward areas, modernisation of technology, energy conservation and export. The Committee on the other hand contests this view point. According to the Committee granting license by the Govt. to a project meant automatic financing by Govt. owned institutions. It resulted in relaxing the appraisal standards of the project by financial institutions. Dilution of debt equity ratio attracted new entrepreneurs. It made debt rather than equity as a source of investment. They obliged to finance the units that have lost viability because of Govt. concern for employment. Therefore as industrial development proceeds economy attains greater sophistication. DFIs should compete in the capital market, maintain their sound financial health adopt uniform accounting system and maintain proper capital adequacy. This has created problems for DFIs. They are mostly concessional in character. Their main programme is to refinance the financial institutions at the State and the regional level. Financial discipline as envisaged by the Committee will definitely obstruct the refinancing of projects in backward areas. The financial position of the State level financial institutions after provisioning specially with regard to nonperforming and doubtful assets will appear to be very unfavourable and will be a difficult task for them to mobilise resources by way of equity and bonds to make their reduction in refinance.

In an article "Capital Adequacy Gaps for Banks, problems and prospects" K. Satyanarayan, EPW, Feb'94 has estimated the capital adequacy gaps of the banks prescribed by RBI by the year 1996 and concludes that for the public sector banks as a whole minimum capital adequacy gap will be Rs. 20,000 crores. So far as nationalised banks are concerned such shortfalls would be met by the budgetary provisions of the Govt. but no such provision is there for the development banking system. Therefore development banks will suffer from the objective of concessional finance on one hand and prudential norms on the other.

(b) Balanced Regional Development :

One of the accepted objectives of development banking in India is balanced regional industrial development. "Sometimes it is pointed out that institutional assistance flows largely to States which are already industrially developed. Therefore development banking follows the principle of dispersal of assistance and even distribution of loans particularly in favour of the developed regions. The locational decisions of industrial units though sometimes outside the purview of financial assistance, locations of projects in backward areas and no industry districts merit attention. Different State Governments offer several types of incentives to attract units to their own state. Generally it is presumed that competition among States to attract industrial units will result in equalisation of incentives leaving the locational decision to the final entrepreneurs. But as things stand today Maharastra, Gujarat & Tamilnadu have got 60% of the total institutional finance compared to the rest of India. The Economic Survey reveals that the total assistance granted by the year April'94—Jan.'95, sanctioned and disbursed by the DFIs and investment institutions amounts to Rs. 50014.2 crores and disbursements were to the extent of Rs. 23353.0 crores. Sanctions of DFIs grew by 82% while those of investment institutions declined marginally by 1.3%. On the whole sanctions increased by 55%. Similarly disbursements grew by 40% in case of DFIs and in case of investment institutions reduced by 9.6%. The lower disbursement was due to the fact that many companies have raised equities and debentures in domestic and international markets in advance of projected investment, thus making it unnecessary to draw upon sanctioned assistance at this stage. So far as Orissa's case is concerned it has got a loan from IDBI by the same period to the extent of Rs. 702.29 crores and disbursement of Rs. 344 crores. Taken with other DFIs such as SIDBI which has extended an assistance of Rs. 1.5 crores, it will never be more than Rs. 710 crores with 4% population of India and a total sanctioned amount of Rs. 710 crores. Orissa would have got Rs. 2000 crores but unfortunately we have got not even Rs. 1000 crores from the DFIs. Therefore the balanced regional industrial development is a Myth. Among the States the backward districts of the developed States have got more than the developed districts of the backward states. Therefore there has been concentration of concessional assistance only in a few States and a few districts of a State and what is required is both area specific and project specific development of the infrastructure, so that DFIs can play a meaningful role for reducing regional imbalances in the regional development. Development of infrastructure and development of industries should go together.

(c) Growth of Entrepreneurship :

One of the most important promotional activities of the Development Banks in India is to promote the body of entrepreneurs who will take up the challenge of the rapid industrialisation of the country. Shortage of entrepreneurs and shortage of viable projects hinder the process of industrialisation in the backward States of the country. The DBs organised Inter institutional co-ordination group for preparing the project feasibility report, initial guidance and liaison service to prospective entrepreneurs—when advanced states like Tamilnadu, Maharastra and Gujarat are blooming with new groups of entrepreneurs both technical and general, the states like Bihar, Orissa and M.P. are lagging behind. Since the management of the Industries will be more competitive and complex, more efficient managers can only thrive. Several E.D.P. programmes are conducted by SIDBs or by the State E.D.P. institutes. What is required is a owner manager entrepreneur with complete awareness about the information who can use local manpower, resources and skill to manufacture low cost output. So far as rural industries are concerned one has to locate, encourage, train and develop the entrepreneurs. One has to attract the new group of capitalist farmers to start agro-based industries which will be viable and competitive.

A study on Entrepreneurs and Micro Enterprises in Rural India by Ajit Kanitkar (E.P.W. Feb. 26, 1994) reveals that NABARD conducted 36 E.D.P. Programme in 1992 through 14 voluntary agencies, and 1300 trainees were trained and they were prescribed 300 micro enterprises.

This was the programme to develop Industrial entrepreneur. As against this there are some who advocate group entrepreneurship i.e. inculcating entrepreneurial characteristic among a group of people. This scheme has proved well in Nagaland. There are others who advocate a contingent approach which means the EDP strategy should depend on the level of development of the area, characteristic of the people, nature of the sector and the type of enterprises to be followed. From the empirical studies it has been found that those rural entrepreneurs became successful who had work experience and family background of business or enterprise. The rural entrepreneurs should be trained in the guided entrepreneurship and secondly the development bankers should redesign the working of the financial institutions at the village level. They should know their customers and even if they do not have formal education they should be genuinely interested in developing one enterprise. To make clients perceive that the financial institutions are their best friends, is a great challenge for the development bank.

Technical Consultancy Organisations :

TCOs have been set up by All India Development banks to provide a variety of consultant services, preparing feasibility and project reports, E.D.P. programmes, diagnostic studies and rehabilitation scheme for the sick units and design engineering and other services for implementing projects on turn Key basis in the small and medium sector. So far as rural industrialisation programme is concerned these T.C.Os adopted only one block in their respective jurisdiction for implementation of the rural industrial projects. Now the time has come when TCOs should not only interchange ideas, experience and information among themselves but should disseminate it to the prospective entrepreneurs.

In this connection a new challenge has come to the TCOs in view of the programme of the Micro-enterprises in rural areas. Where the enterprises face a stage of saturation arising out of new entrants and more of competition be it banking} in Tamilnadu or typewriting firm in Kerala or like hotel in Bengal, Bihar and Orissa high ways—unfortunately there are hardly any consultancies available to them in the neighbourhood with whom these entrepreneurs will have a dialogue. There is an urgent need to have a pool of consultants or counsellors to advise them appropriately. A new and innovative approach to the practice of counselling is required to solve their problems.

Rehabilitation of Sick Industries :

Industrial sickness has grown over the years. The Development Banks are expected to nurse the sick industries. The mortality of the ISI sector is very high because of low resilient power of the promoters. Managerial inefficiency, lack of marketing facilities and working capital shortages are the main causes responsible for the industrial sickness. It has been suggested that both block capital and working capital agencies should have joint appraisal and prompt appraisal of the industries going sick. Whatever nursing capital would be available should be made available timely and quickly so that the unit can survive. Here also a conflict arises between the social purpose and economic performance of the unit and this must be resolved as far as possible. Misutilisation and diversion of low cost funds from the designed enterprise to make it sick to avail nursing finance should be avoided along with the timely grant of funds and consultancy to the genuine entrepreneurs. These require more of professionals and experts to study the sickness to prescribe a timely remedy.

Development in the Capital Market :

Now most of the DBs at the national level have entered the capital market to raise shares to increase their resource base. This is recent development. Among the sc hemes the most importants are Mutu Funds, venture capital scheme and leasing finance.

Mutual Funds :

As per the Economic Survey of India 1994-95, one of the important capital reform in the money market has been the emergence of institutional investors like mutual funds. Total number of mutual funds registered including UTI is 21. The aggregate funds under all mutual funds are around Rs. 64820 crores, through 155 schemes with UTI accounting 81% of the total fund. The non-UTI mutual funds have launched so far 28 schemes raising over Rs. 3100 crores. Private mutual funds have raised roughly Rs. 2000 crores. Foreign asset management companies have also entered the mutual fund business by settfng up domestic asset management companies as joint ventures. Govt. has laid down a procedure for calculating the Net Asset Value of mutual fund schemes.

Mutual funds have also been allowed to underwrite issues as a part of their investment activity. Regular monitoring is being done by SEBI and RBI of these mutual funds. R.B.I. has asked recently to MFs to supply weekly return of their performance. S. S. Sunderesan reports in E.T. 29th Dec, '95 that most of the private mutual funds are losing because of cut-throat competition among them and fall in share prices, and unprofessional investment decisions when the stock prices were increasing. But IDBI, NIT and ICICI Premier have done well. Mutuals must see the signs of the market and act accordingly. What is required is that investors should carefully prepare their portfolio. Available surplus funds should be carefully divided into different asset types in order to avoid risk.

Venture Capital Fund :

Venture capital institutions which are major players in the capital market in the developed countries are only seven years old in India, when in 1988 Govt. gave guidelines that venture capital companies can finance the projects which involve new technology or relatively new technology and which are implemented by new and professionally qualified entrepreneurs. After these we find the formation of TDICI and RCTFC and other venture capital funds. After these guidelines some tax concessions in capital gains were also given to the investors of these companies. The guidelines for off shore venture capital have been issued recently. This is expected to attract more of funds. What is required is to broaden the definition of venture capital so as to include other companies and provide more of incentives and concessions so that investment in new technology will be encouraged by the firms. (A Fund for the Startups—by S. Ramesh and Arun Gupta—E.T. 6 Dec, 1995).

Leasing :

Lease financing has been one of the profitable channnels of investment for non-banking companies who engage themselves primarily in these activities. Leasing in particular is profitable because it does not require margin money and the cost of funds is very low. But the lease rentals are governed by market price and the DBs may be the losers, SFCs in particular are unable to go for these companies because of low capital base and accumulated losses.

NABARD :

As said earlier NABARD is the apex development bank in the field of agriculture which refinances the loans of the State Co-operative Banks and other co-operative Banks. It insists on minimum recovery loans upto 40%. Any State Co-operative Bank which does not fultil this criteria will not get loan from NABARD. This is indirectly compelling to reduce the overdues. A State like Orissa is not able to fulfil these conditions. Therefore Government of Orissa is the first Government to sign an MOU with NABARD for fulfilment of these conditions, that is assuring minimum 40% repayment of the loan. The Committee to Review Agricultural Credit System in India under the chairmanship of Prof. Khusroo has given a suggestion to solve this problem. According to the Committee loan should be given not on a basis of recovery but on a basis of solvency of a bank. The Banks which are not insolvent should get these loans. Solvency of a bank can be measured if accumulated losses of a bank plus overdues have not eroded its capital base. This will indirectly compel the banks to reduce their overdues and give more of loans to the poorer States.

Regional Development Banks :

So far as Regional Development Banks are concerned, State Finance Corporations and State Industrial Development Corporations are the most important ones. The problems they face in the changed scenario of financial sector reforms is the cut in the refinance amount, increase in overdues, high burden of administrative cost and lower return of equity. Working results from 26 SFCs operating in the country reveal that more than half of the term credit needs of the SSI sector are met by the SFCs. They don't get any budgetary support for their losses and overdues like commercial banks. They do not enjoy a high degree of autonomy in their operations particularly to invest in other fields except SSI sector. Their refinance profit is only 3%. Their risk is of high order. Their interest burden becomes heavy. So far as capital adequacy norm is concerned they have to become stricter in appraisal and prudential in accounting system which come in conflict with their social responsibility. The industrial structure itself suffers from infrastructural constraints, marketing problems and resource constraints. Therefore laon recovery position is limited. Mass production of appraisal report involving low debt component has reduced their financial viability. And what is urgently needed is that they should improve their financial position and improve their organisational efficiency. Their capital base should be expanded by amending their Act. They should be provided with budgetary support as provided by the Government to the commercial banks. So far as OSFC is concerned, the Orissa Economic Survey 1994-95 shows that the corporation from the inception has given loans to the extent of Rs. 600 crores. During the year 1993-94 the corporation has given a loan to the extent of Rs. 46 crores to 765 units. 30% of the loans have been given to the backward districts. Amount of recovery of loan is Rs. 61 crores as against Rs. 64 crores in the previous year. The corporation is also providing loans to entrepreneurs under soft loan scheme. The corporation has entered into joint assistance with IPICOL in providing loans of Rs. 2.01 crores to 4 new projects.

If one reviews the performance, one would like to comment on the losses of OSFC during the 40 years of its existence. But those who argue in the favour of SFCs they are of the opinion that SFCs are only a source of finance to the SSI Sectors. They do not enjoy any budgetary support and have been instrumental in starting industries which might have gone sick but they have created industrial towns and semi-urban centres with greater linkage effects by creating more of employment opportunities. When the infrastructural constraints and low capacity utilisation have not resulted in the desired rate of industrialisation, how can OSFC compensate for the high overhead and priority sector lending. So far as industrial corporations are concerned State Industrial Development Corporations in Orissa and West Bengal have gone more for joint sector projects than for individual projects. IDCOL of Orissa is exporting Pig Iron during 1994-95. IDCOL has several programmes of diversification. The challenges they face are professionalisation of the managerial cadre reduction in the level of overdues and increasing the promotional role and timely implementation of projects.

We have covered the new role of development banks in India with special reference to Orissa. Their most important problem is that they do not get an eligible borrower as per their eligibility criteria. And there is a conflict between the social responsibility of business and industry with that of economic efficiency. In the changed circumstances of liberalisation and privatisation, globalisation and fiscal correction this problem has become more acute. Therefore development bankers in India should reconcile these two conflicting objectives like a common banker reconciling liquidity with profitability. I thank you for your patient hearing.

Thanking You.

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MEASUREMENT
OF
STANDARD OF LIVING

On Some Measurements of Standard of Living

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Standard of living is a macro concept which may be defined as the economic well-being of a population. However, this definition is narrow in its scope as it fails to encompass all positive and development aspects of living standard of which economic aspect is an important one. Considerable efforts have been expended by economists in inventing an absolute measure of living standard. International forums like the United Nations have also put themselves into efforts in providing with an appropriate entity to empirically measure living standard. Once, an entity is invented its variation accross several populations can be judged by applying any one of the measures like (1) Lorenz Curve, (2) Gini Coefficient, (3) Coefficient of Variation, (4) Alkinson's Measure of Inequality and others locating the extent of inequality in standard of living over the populations under enquiry.

The history of living standard analysis is as old as the history of econometric analysis of family budgets which dates back to 1857 when Ernst Engel presented the results of his pioneering work on household budget data relating to 153 Belgian working class families. His 'law of progress' has been summarised by Prais and Houthakker (1955) as 'the proportion of expenditure devoted to food decreases as the standard of living of the household increases'. In the mean time, more than a century has passed and the concept of standard of living has entered into several phases of transformation and accordingly, in each case, a new measure has been invented to replace the old one. The present study aims at, as far as practicable highlighting all such measures of living standard. All such measures have been put under three categories viz : (1) a set of conventional measures, (2) Physical Quality of Life Index and (3) Human Development Index based on Sen's (1987) Capabilities Theory.

I. Some Conventional Measures of Standard of Living :

Under the set of conventional measures, those ones are included which are simple to be computed and having only economic implications. From a group of probable alternatives, a choice is to be made depending on the merits of the measure.

Cardinal Vs. Ordinal Measures :

Cardinal measures of standard of living seek to express the latter in terms of numerical units. Ordinal (normative/ethical/welfare) measures, on the contrary are tied with the language of morals. Standard of living is related to individual utilities. The weighted average of these utilities could be used to construct a social welfare function. But the ordinal nature ot utility rules out any interpersonal comparison of utility and thus, standard of living of a society does not reflect on a social welfare function. Of these two, cardinal measures are more appropriate which may either take the shape of Net National Product (NNP) at market price or at factor cost.

NPP at Market Price Vs. NNP at Factor Cost :

NNP at market price is looked from the view point of what it brings on the market net of capital consumption allowances. NNP at factor cost is evaluated on the basis of the aggregate rewards that are paid to the factors of production by the whole body of producers. The aggregate of such rewards determines the spending capacity of the owners of the factors and thus, NNP at factor cost better represents the standard of living than NNP at market price as the latter does not wholly and directly explain the spending capacity of the population of a country. However, NNP at factor cost is an indirect measure of standard of living. More direct and satisfactory measure derived from NNP at factor cost is either private household income or private household (Consumer) expenditure.

Private Household Income Vs.
Private Household Expenditure :

Level of living is more a reflection of family income rather than individual income. Earning a high income does not necessarily ensure a better standard of living unless the former reflects equally high on consumption. Thus, in a cross-section, the correlation between income level and standard of living is believed to be weak. Moreover, beyond a critical level of income, consumption expenditure is influenced more by non-income determinants than income itself. The insensitivity of consumption expenditure in respect of change in income after a critical level of the latter makes income to be less appropriate than private consumer expenditure as a measure of standard of living. Furthermore, between consumption expenditure and income, it is the former which is less unequally distributed than the latter over the cross-section. The validity of the proposition is proved in Indian context. Chaudhury (1978) claims that though consumption is highly unequally distributed among the households of different economic status, the degree of inequality here is smaller than for income in India. His claim has been established beyond doubt. For 15 major states of India (Population of each state exceeding 10 millions as per the 1991 Census), the extent of variability in the distribution of per capita consumer expenditure is the least compared with those of per capita income at current and constant prices taken separately (Table-I). The coefficient of variation for household expenditure is the least (CV = 15.02). Thus, standard of living of a population is better explained by private household expenditure than private household income in its per capita equivalent. The average level of living prevailing in a year may thus be evaluated by the height of consumer expenditure per capita corresponding to that year. While the height of level of living standard is measured by per capita household expenditure, its quality is ordinarily determined by the extent of Engel's ratio. High Engel's ratio indicates low level of living standard and vice versa. A household with more dependents would have a lower standard of living than another with the same total expenditure but with fewer dependants. In this respect, one has to see whether it is family size or family composition that should be taken into account while measuring the level of living standard. If the expenditure is evaluated at the family size, it is called per capita household expenditure. On the contrary, evaluating expenditure at the family composition results in per unit household expenditure.

Per Capita Household Expenditure Vs.
Per Unit Household Expenditure :

Household sixe affects the level of living standard. Economies and diseconomies of scale in household consumption are directly connected with family size. Standard of living measurement remains partly incomplete without any reference to these economies and diseconomies, Economies of scale in household consumptiom emerge when with a given level of expenditure per capita, a larger household enjoys a better standard of living than a household with fewer number (Prais and Houthakker, 1955). However, the per capita treatment does not take into account the personal characteristics of family members like age, sex, marital status, level of education, type of occupation pursued etc. Hence, it is not the simple household size but household composition that matters much in determining the level of living standard. In order to obtain household composition, each non-adult-male member is to be expressed as a fraction of an adult-male member, then aggregating over the adult-equivalents. The sum so obtained if is used as the deflator of total household expenditure, the resulting average may be called per unit total household expenditure which may be interpreted as a measure of standard of living. In order to evaluate household expenditure at family composition, it is necessary to convert each household into a certain number of 'equivalent-adults' by the use of some 'equivalent-scales' which are otherwise called 'consumer unit-scales' comprising 'consumer-unit-weights' (Prais and Houthakker, 1955; Singh and Nagar, 1973). Two scales are available in order to estimate adult-equivalents namely normative scales and economic scales.

Normative Scales Vs. Economic Scales :

Normative scales are constructed on the basis of nutritional needs of members of different age and sex belonging to a household. These normative scales reflect relative calorie needs of household members with difference in characteristics ignoring the cost involved to provide with these recommended calorie requirements. Since these scales skip-off cost aspect of meeting calorie needs of persons of different age and sex and are more relevant for poverty analysis may not be appropriate to evaluate standard of living. On the contrary, economic scales are constructed on the basis of actual total household expenditure on the assumption that household members contribute differently to the consumption of specific items (both foods and non-foods) according to their age and sex. Two alternative methods are available to estimate economic scales (1) discret adult equivalent scales and (2) continuous adult-equivalent scales.

Discrete Adult-Equivalent Scales Vs.
Continuous Adult-Equivalent Scales :

A discrete scale approach holds that scales are constant within each broad age-sex group but are variable over these groups. More refined methods have been devised by Prais and Houthakker (1955) and Singh and Nagar (1973) for constructing discrete adult-equivalent scales. In each case, 'specific' and 'income' consumer unit weights are to be determined. This approach suffers from the drawbacks that (1) the weights so obtained heavily lean towards the classification of the members of the household and (2) members at the bottom of the age-bracket are believed to have behaved in the same manner as and when they attain the highest age in the same bracket. Construction of continuous adult-equivalent scales is based on the assumption that the equivalent weights are the functions of age and sex of the household members. While Friedman (1952) believes in a parabolic scale function for the age group ($0 \leqslant a \leqslant 20$), and a linear function thereafter ($a > 20$), Blokland and Somermeyer (1970) suggested a cubic scale function for the age-group ($0 \leqslant a \leqslant 20$) and a horizontal scale from the age of 20 onwards. Paul (1989) postulated a cubic scale function for children ($0 \leqslant a \leqslant 19$) and an inverse function of age for males and females of age $a > 19$. He estimated a life-time-scale from NSS data for Punjab on household budgets. Thus, no agreement is seen to have appeared among economists recommending continuous adult-equivalent scales. Because of the presence of a strong arbitrariness in constructing continuous adult-equivalent scales, it is less preferred to discrete scales inspite of the drawbacks inherent in the latter. Whatsoever may be the choice, it is necessary at the beginning to have a knowledge of the total household expenditure which is evaluated at certain prices of the items of the household consumption. Now it is thrown to a choice between current prices and constant prices at which total household expenditure should be evaluated in order to obtain per-unit equivalent.

Current Prices Vs. Constant Prices :

Evaluating per unit expenditure at current prices is believed to overestimate standard of living if there is the pressure of inflation. Hence, it is recommended to estimate per unit expenditure in terms of constant prices. In order to do so, one has to ascertain an implicit deflator with respect to a base year. This procedure would reflect the level of living standard more appropriately than had it been computed at current prices.

From the above discussion, it follows that an absolute measure of standard of living should consist of cardinal units. Conventionally, per unit household expenditure evaluated at eonstant prices on the discrete adult-equivalent scales is the relevant measure.

II. Standard of Living & Physical Quality of Life Index (PQLI) :

Physical Quality of Life Index (PQLI) is a post-World War II invention of the countries with renewed interest in economic development. By this time, real GNP per capita had lost all its fascination of being used as an indicator of development. It is realised that a bigger basket of material production does not necessarily guarantee a 'better life' to a population. Similarly, per capita national expenditure does not ensure a qualitative life to a nation as a greater part of such expenditure is directed merely to preserve themselves against any threat of war and internal indiscipline. Hence, a measure called PQLI is invented to observe social progress or decline of nations overtime which is a macro measure of standard of living.

PQLI is a composite index of standard of living. Three critical variables taken jointly determine the index. These variables are (1) Life Expectancy at Birth (in short 'Longevity'), (2) Infant Mortality Rate Per 1000 Live Births (in short 'Infant Mortality') and (3) Percentage Literacy Rate (in short 'Literacy'). These three are essentially basic physical ingredients of human life. Unlike GNP, each one of the ingredients of PQLI is independent of the existing pattern of distribution and hence, the index has no connection with distributional issues.

Each component of PQLI is indicated in heterogeneous units. While 'Longevity' is expressed in completed years, 'infant mortality' is measured by number of infants dying at birth out of each 1000 live births and 'literacy' is displayed on percentage scale. In order to find a common unit of measurement to represent PQLI, a system of indexing is devised. Couple of methods are available to compute PQLI. Of these methods, important ones are (1) the Ordinal Method (Nissan, 1993), (2) the Method of Principal Components and (3) the Percentage Method. In the present context, the third one is used which portrays PQLI on the percentage scale 0-100. According to this method, each one of the components is to be given a percentage interpretation excepting literacy which is given in percentage in the original series. For evaluating longevity and infant mortality, in each case a separate formula is used as these two components differ in terms of their composition. In order to apply the technique of computing the 'composite index', an illustration of 15 major states of India is given and for each state the PQLI is computed by using the following formulae.

1. Longevity is evaluated by

$$\hat{Y}_{1i} = \frac{Y_{1i} - Y_{1}Min}{Y_{1}Max - Y_{1}Min} \times 100 \qquad i = 1, 2, \ldots \ldots 15 \qquad (1)$$

Where $\hat{Y}_{1i}$ = the computed value of longevity of the ith state,

Y_{1i} = the actual value of logevity of the ith state,

$Y_{1}Min$ & $Y_{1}Max$ = the minimum and maximum value of longevity respectively ascertained from the original series.

2. Infant Mortality is computed from

$$\hat{Y}_{2i} = \frac{Y_2Max - Y_{2i}}{Y_2Max - Y_2Min} \times 100 \qquad (2)$$

$$i = 1, 2, \dots \dots 15$$

where $\hat{Y}_{2i}$ = the computed value of infant mortality of the ith state,

Y_{2i} = the actual value of infant mortality of the ith state,

Y_2 Min and Y_2 Max = the minimum and maximum value of infant mortality respectively located from the original series.

3. Literacy rate (Y_{3i}) having been given on the scale 0-100, does not necessitate any further treatment and thus

$\hat{Y}_{3i} = Y_{3i}$ for all i=1, 2 ... ... 15.

The simple arithmetic average (each component is of equal weight in determining PQLI) of these three percentage viz $\hat{Y}_{1i}$, $\hat{Y}_{2i}$ & $\hat{Y}_{3i}$ so arrived at determines the value of the composite index and it is the PQLI score (in%) of the corresponding state. The results relating to fifteen major states of India are displayed in Table-II. On the basis of PQLI scores, (under Col. 6 of Table-II), the ranking of each state is decided. Higher the score, better is the performance in standard of living and accordingly, Kerala, Punjab and Maharastra are seen to have occupied the first, second and third position respectively. The scores of Madhya Pradesh, Orissa and Uttar Pradesh are the worst. They capture the 15th, 14th and 13th position respectively on the PQLI scale. Though, Kerala and Punjab occupy the first and second position respectively, a lot of gap exists between their percentile status. The scores of Madhya Pradesh and Orissa are almost the same. Thus, among the major Indian states, it is Kerala which ensures the best standard of living and Madhya Pradesh and Orissa which provide only with an excuse for standard of living to their residents.

A lot of debates both at the national and international levels have been ensued on the probable determinants of PQLI and its components. No such determinant(s) have been declared universal. It is a fact that some determinants exist and equally a fact that the economic, social and political surroundings of a country give these determinants. In order to ascertain the determinants of PQLI and its components in India, we have restricted our choice to (1) per capita net state domestic product (NSDP), (2) poverty ratio and (3) per capita expenditure on social sectors like health and education. The coefficient of elasticity of PQLI with respect to each variable has been computed and tested for statistical significance. The elasticity coefficients are with appropriate signs in all cases. The coefficients of elasticity of PQLI with respect to (1) per capita NSDP at current prices, (2) poverty ratio, (3) per capita expenditure on health and (4) per capita expenditure on education are computed to be (1) 0.771, (2) – 0.280, (3) 0.167 and (4) 1.117 respectively with the second one being statistically not significant. Between per capita NSDP and poverty ratio, it is the former which may help favourably displacing PQLI. No evidence exists in support of poverty ratio determining PQLI. Thus, in India, it is not the poverty but affluence that may influence PQLI. Between expenditure on health and education, it is the latter which affects PQLI stronger and faster than the former. Kerala's experience stands as an ideal example of showing a complimentarity of high magnitude between education and health with education taking the leading role (Panikar and Soman, 1984). Thus, an increase in literacy rate is shown to have upgraded the other to components of PQLI i.e. infant mortality and longevity. There is adequate argument in support of literacy drive improving PQLI. An increase in percentage literacy rate will make people health-conscious leading to an increase in longevity which in turn, will reduce infant mortality rate. Thus, in order to upgrade India's score on PQLI scale, state intervention is more effective than private pursuits.

III. Standard of Living and Capabilities :

Discussion of standard of living under Secs. I and II emphasizes 'commodities', their 'consumption' and deriving 'utility' therefrom as main themes. Sen's (1987) notion of 'capabilities' provides a completely different tilt to the concept of standard of living. This theory believes in that an increase in living standard is inter-woven with an increase in 'capabilities' of the population. Thus, standard of living of a population will improve if (1) they have a capability to live long, (2) they have a capability to avoid illiteracy, (3) They have a capability to be free from hunger, malnutrition etc. and (4) they have a capability to enjoy personal liberty and freedom. The concept of 'capability' being a dynamic one, the list stands modified with the passage of time. In order to improve standard of living, necessary steps should be taken to develop these 'capabilities' of a population. The concept of 'Income' loses all its significance as an index of standard of living for having neglected the human development aspect in the latter. The Human Development Index (HDI) interweaves Human Development with Capabilities.

HDI emphasizes three 'capabilities' viz : Longevity, Educability and Consumption-satisfiability. Accordingly, three components are identified to construct the index of living standard i.e. HDI. Each component corresponds to a particular 'capability' i.e. (1) Average Life Expectancy at Birth in Years corresponds to Longevity, (2) Literacy Rate of Adult population Above 15 Years and Mean Years of Schooling of Children Below 15 Years taken jointly to .represent Eduational Status of Population corresponds to Educability and (3) Adjusted Per Capita Income corresponds to Consumption-satisfiability. While constructing the International Index of Human Development, Educational Status of Population is determined by assigning a weight of 2 to Adult Literacy Rate and 1 to Average Years of Schooling of Children and adjusting per capita income over the cross-section of countries on the basis of Purchasing Power Parity (UNDP, 1993). Each component viz : longevity, literacy and per capita Income being given in differential units, need to be expressed in percentage term. The simple arithmetic average of the three percentages so arrived at gives the Index of Human Development for the concerned country.

An approximate index has been computed for each major state of India and exhibited in Table-III. This index is an approximate one in the sense that the Educational Status of population of each state has been identified only with Percentage Literacy Rate of Population of age 7 years and above in the event of non-availability of statewise data on (1) literacy rate of population above 15 years and (2) mean years of schooling of children below 15 years. Other two components viz. longevity and income (per capita SDP at constant prices) are in their usual units of measurement. Since, the literacy rates have been given in percentages over the cross-section of 15 major states of India, donot require any conversion. The hth component for h = 1, 2 is to be converted into percentage by applying the formula

$$\hat{Y}_{hi} = \frac{Y_{hi} - Y_{hMin}}{Y_{hMax} - Y_{hMin}} \times 100 \qquad (3)$$

$$h = 1, 2$$
$$i = 1, 2, \ldots\ldots\ldots\ldots 15$$

Where $\hat{Y}_{hi}$ = the computed percentage of the hth component in respect of ith state,

Y_{hi} = the actual value of hth component relevant to the ith state,

Y_{hMin} and Y_{hMax} = the minimum and maximum value of hth component in their respective series.

The percentages so computed by (3) are given within parentheses under Cols. (2) and (4) in Table-III. On the besis of the score of each state, HDI relevant to that state has been computed and ranking is assigned accordingly. It is seen that ranking made on the basis of PQLI scores does not agree with ranking made in terms of HDI scores .as the rank correlation coefficient between two systems of ranking is P=0.114 not significant even at 50 percent level. This disagreement has been the outcome of the absence of a correlation between the excluded variable (infant Mortality Rate) from the HDI and the newly imported variable (per capita NSDP at constant prices).

IV. Conclusion :

Of these three methods of measuring standard of living, the method dealing with conventional measures has not much relevance to the present situation as these measures do not comply with the requirements of the changing social and economic scenario at least of the third world developing countries. The PQLI measure of standard of living prevailed over the first lot of measures for about half a century ultimately to be replaced by the DHI version. Critics of PQLI hold that these measures neglect human dimension. Moreover, these measures do not conform to the order of requirements of the developing countries of the three components viz. longevity, infant mortality and educability. In reality, at the early stage of economic development, developing countries place a greater emphasis on income—improvement efforts and thereafter educability and longevity. Reducing infant mortality rate comes as a third choice. PQLI having assigned equal weight to three components may stand suspect to indicate living standard. Having felt the necessity of per capita real income in improving human betterment, the 'capabilities' theory assigns it an equal weight with those of longevity and educability. The 'capabilities' theory is not free from deficiencies. While constructing HDI, only three variable components are identified corresponding to three capabilities. Human Development may not necessarily be wholly explained by these three variables. Thus, other equally likely variables may be included in order to improve upon the quality of HDI. One such variable is individual freedom and liberty. A country rich in terms of longevity, educability and consumption-satisfiability fails to ensure better standard of living to her residents if individual freedom is at stake. In the absence of individual freedom, persons will have no access to information and liberty to exercise choice. Hence, in the construction of HDI, such variables are to be included. A serious problem is posed by the non-availability of a cardinal equivalence of all such variables. At international level, efforts are ongoing as to discovering measurable entities to substitute variables like individual freedom and liberty and the like ones. Till their discovery, Sen's 'capabilities' theory may not produce a fully satisfactory measure of living standard.

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TABLE—I

Extent of Inequality in the Distribution of Per Capita Consumption and Income in India.

Stater	Per capita Monthly Consumer Expenditure 1987-88 (Rs.)	Per capita Income at Current Prices (Rs.)		Per capita Income at Constant Prices (Rs.)	
		1986-87	1991-92	1986-87 (At 1970-71 prices)	1991-92 (At 1980-81 prices)
Andhra Pradesh	185.31	2333	5570	758	1839
Assam	177.74	2204	4230	604	1915
Bihar	146.74	1802	2904	482	1142
Gujarat	195.18	3223	6425	860	2526
Haryana	225.58	3925	8690	1233	3456
Karnataka	178.58	2486	5555	799	2171
Kerala	227.52	2371	4618	639	1886
Madhya Pradesh	169.31	2020	4077	583	1588
Maharastra	216.24	3793	8180	1039	3440
Orissa	148.63	1957	4068	535	1652
Punjab	253.72	4719	9643	1652	3884
Rajasthan	196.22	2150	4361	646	1717
Tamil Nadu	119.75	2732	5078	828	2056
Uttar Pradesh	167.87	2146	4012	607	1606
West Bengal	186.08	2988	5383	860	2084
$\frac{\sigma}{\bar{X}}100$	15.02	30.08	33.83	36.74	34.71

Sources : Col. 2 : Sarvekshana, Vol. 15, No. 1, Issue No. 48, July-Sept. 1991.

Cols. 3 & 5 : Economic Survey 1988-89, Govt. of Orissa.

Cols. 4 & 6 : Economic Survey 1994-95, Govt. of Orissa.

TABLE—II

Computed Scores of Each State and her Ranking on the PQLI Scale.

States	Life Expectancy at Birth 1991 (%) Y	Infant Mortality Rate 1991 (%) Y	Literacy Rate 1991 (%) Y	Percentage Scores	PQLI	Rank
Andhra Pradesh	35.75	48.62	44.09	42.82	0.428	9
Assam	9.84	41.28	52.89	34.67	0.347	12
Bihar	16.58	52.29	38.48	35.78	0.358	11
Gujarat	32.12	52.29	61.29	48.57	0.486	8
Haryana	44.56	53.21	55.85	51.21	0.512	6
Karnataka	52.33	44.95	56.04	51.11	0.511	7
Kerala	100	100	89.81	96.60	0.966	1
Madhya Pradesh	14.51	3.67	44.20	20.79	0.208	15
Maharastra	52.33	60.55	64.87	59.25	0.593	3
Orissa	15.03	0	49.09	21.37	0.214	14
Punjab	74.09	66.97	58.51	66.62	0.666	2
Rajasthan	29.53	44.95	38.55	37.68	0.377	10
Tamil Nadu	37.31	63.30	62.66	54.42	0.544	4
Uttar Pradesh	0	30.28	41.60	23.96	0.240	13
West Bengal	47.15	51.31	57.70	52.08	0.521	5
$\frac{\sigma}{x}$ —100	67.51	49.06	23.37	—	8.74	—

TABLE III

Human Development Index & Other Related Indices

Sates	Life Expec-tancy at Birth 1991 (in years)	Literacy rate 1991 (In per-centage)	Real SDP per capita 1991-1992 (in Rs.)	HDI	Depriva-tion Index (DI) *	Ranking on HDI	Ranking on PQLI
Andhra Pradesh	58.6 (35.75)	44.09	1839 (25.61)	0.352	1.431	9	9
Assam	53.6 (9.84)	52.89	1915 (28.40)	0.304	1.594	10	12
Bihar	54.9 (16.58)	38.48	1142 (0)	0.184	2.000	15	11
Gujarat	57.9 (32.12)	61.29	2526 (50.84)	0.481	0.995	6	8
Haryana	60.3 (44.56)	55.85	3456 (85.01)	0.618	0.531	4	6
Karnataka	61.8 (52.33)	56.04	2171 (37.80)	0.487	0.975	5	7
Kerala	71.0 (100)	89.81	1886 (27.33)	0.724	0.173	2	1
Madhya Pradesh	54.5 (14.51)	44.2	1588 (16.39)	0.250	1.777	13	15
Orissa	54.6 (15.03)	49.09	1652 (18.74)	0.276	1.689	12	14
Maharastra	61.8 (52.33)	64.87	3440 (84.42)	0.672	0.349	3	3
Punjab	66.0 (74.09)	58.51	3864 (100)	0.775	0.	1	2
Rajastan	57.4 (20. 53)	38.55	1717 (21.12)	0.297	1.618	11	10
Tamil Nadu	58.9 (37.31)	62.66	2056 (33.58)	0.445	1.117	8	4
Uttar Prades	51.7 (0)	41.60	1606 (17.05)	0.196	1.959	14	13
West Bengal	60.8 (47.15)	57.70	2084 (3461)	0.465	1.049	7	5

Figures within parentheses indicate percentage equivalents.

$$HDI = \frac{\text{Sum of Three Percentages under Cols. 2, 3 \& 4}/100}{3}$$

$$DI* = \frac{HDI_{Max} - DHI_{Atcual}}{[HDI_{Max} - HDI_{Min}]/2}$$

Measurement of Standard of Living : Its Difficulties

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Various indicators such as food, clothing, housing, average life expectancy, literacy rate, public provision of social goods, etc. are used to measure standard of living / level of living. The necessities of life are absolutely necessary for the common man, while the biological scientists prescribe the minimum physiological needs of food, clothing and shelter. It is presumed that higher production level brings in higher standard of living via higher consumption standard (Samuelson : 1980). The emphasis on national product, aggregate income and total supply of particular goods rather than on "ownership" and "entitlements" of people and the capabilities these entitlements generate are important thematic deficiencies of traditional development economics (Sen : 1985).

However, existing theories on measurement of standard of living of an individual are inadequate due to its retrictive assumptions such as (i) maximisation of utility by individual (ii) individual utility as a function of his combination of marketed goods, (iii) no change in consumer's utility function over time, (iv) a competitive consumer, (v) more better than less and (vi) measurement of consumer's standard of living by achieved level of utility. Alternative theories transfer the analysis of standard of living from commodity space to attribute space. They give importance on the "functioning" such as (i) nourishment, (ii) freedom from diseases, (iii) protection from elements, (iv) education, (v) leisure, (vi) physical security (law and order), (vii) security regarding the future, (viii) integrated social life, and (ix) not being ashamed of oneself.[1] But while comparing the standard of living between individuals or between communities (group of people), these attributes are difficult to be quantified. So, there is a need for quantification of standard of living of an individual or a community for the purpose of measurement.

I

Index of Standard of Living :

There is problem of choice of indicators for measuring standard of living. For quantification, various indicators such as (i) economic resources, (ii) total consumption or expenditure and (iii) total income can be considered for measuring standard of living (Atkinson : 1991).

1. Economic Resources :

For consideration of economic resources, one should take into account (a) basic needs, (b) social and demographic indicators (e. g. average life expectancy) and (c) social and public provision of medical care and education, etc.

But difficulties arise when these indicators are considered. For instance, when we talk of food, we think of physiological need of food in terms of calories[2] such as average daily calorie needs of an individual. But does one need calories just by eatting *chapati* made from wheat flour ? Biologically, our food should contain carbohydrates, proteins, fats, vitamins, minerals, water and roughage. For being healthy and strong, we must eat the right amount of food containing the right amount of each component which is called balanced food.[3] So, only calorie intake of individuals may not enable us to measure or compare the level of living /standard of living of two persons. Similar is the problem with other basic needs like clothing and shelter since it differs from place to place according to climatic condition, as well as with social and demographic indicators.

2. Life Style / Consumption :

According to Lanjouw and Stern, there are mainly two measures of standard of living, viz., (i) "apparent prosperity" index and (ii) measure of current per capita income (Lanjouw & Stern : 1991). Total consumption or expenditure plus home produced goods and services may be used as indicators of standard of living (Atkinson : 1991). Regarding the apparent prosperity index, to a great extent, "prosperity" is associated with "life style" visible through (i) quality of housing, (ii) food, (iii) clothing, (iv) the possession of durable goods, (v) consumption of luxuries and so on.

But there are difficulties with this association for measurement of standard of living through life style. First, there is a distinction between "consumption or life style" and "income or commodity command". There may be low life style/consumption in spite of high income due to high saving. Second, intra-house inequalities of life style may cause difficulties in measurement and comparison. For instance, (i) son staying in the town spending lavishly and parents living miserably in the village, and (ii) unequally distribution of tasks and resources between men and women, may not depict the correct picture of standard of living of all the members of the household.

3. Current income/"entitlements" :

The other measure of standard of living is current income which is widely used as an indicator. Income is used as a proxy for standard of living since standard of living is difficult to quantify.

Income :

Though "income" is a major indicator of standard of living, assessment and measurement of standard of living based on income have to be qualified. First, income may understate or overstate the standard of living/ level of living. If a family can dissave or borrow, its current level of living is not restricted by current income and current income in this case, underestimate the standard of living. So on the other hand, income may overstate the standard of living when money income alone is not sufficient to buy the necessary goods due to rationing or non-availability.

Second, there are also difficulties in defining income both in theory and practice. Theoretically, the definition of income is not clear. According to broad definition, income is defined as accretion to wealth, equal to consumption plus increase in net worth during the period (Musgrave : undated). According to this concept, all accretions to wealth are included in whatever form they are received or from whatever sources they accrue. Increase in net worth is measured by comparing net worth valued at market price for the beginning and the end of the period. It is irrelevant to the measure of accretion whether gains have been transformed into cash, that is, realized or whether appreciated assets are retained. Similarly, depreciation is taken care of. This concept of income conflicts with the conventional accounting approach according to which income is recognised only when againg are realized. In this case, there is also problem of treatment of rent saved by the owner—occupant of the house or services rendered by the house wife, or others.

Third, when the public authority consider "money income", they usually take into account the "white" income of an individual, that is, the recorded income—the income which is legitimate. But the money generated out of clandestine and undisclosed deals and transactions in illegal informal economy is called "black" money/black income and the income which is legitimate but not disclosed in order to evade tax is termed as "grey income/"grey" money (Samal : 1992). There are also other types of income such as (i) "moonlight" income, the income earned legitimately by moonlighting, i. e. workers' income by doing private jobs in off-time, and (ii) "invisible" income such as perks and facilities of an employee. Thus, when we talk of money income, all these types of income may be considered which is practically very difficult, especially for public authority.

Fourth, in practice, there is problem of time period used. Income in one year may not reflect the long-term standard of living as in the case of cultivator or filmstar. Related to this problem is the problem of inputs as in some cases, household may use the same inputs for both production and consumption purposes.

The other practical problem is the treatment of the purchasing power of money when we compare the standard of living of people of two different countries. Thus, different measures of income can lead to different conclusions regarding the standard of living.

Entitlements

Living standard relates specifically to the richness of the person's own life. "Capability" is a broad concept and it incorporates the concerns that are associated with what is often called the standard of living but goes beyond it (Dreze & Sen : 1989). Generally the standard of living/level of living depends more or less on the "entitlement" (rather than money income alone) of an individual. A person's entitlement depends both on what he/she owns initially and he/she can acquire through exchange. "Etitlement" refers to the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he/she faces (Dreze & Sen : 1989). The ownership ("endowment") and the exchange possibilities ("exchange entitlement") of an individual together determine his overall entitlement and can be a proxy for the standard of living of an individual.

It is to be pointed out that "income" itself does not provide an adequate basis for analysing the entitlement of a person. To know about a person's entitlements, the following factors may be considered : (i) real income, (ii) education, (iii) health, (iv) social equality, (v) self respect, (vi) freedom from social harassment, (vii) political system (active opposition in a vibrant democracy, (viii) distribution system, and (ix) social environment including water supply, sanitary provisions, etc. (Dreze & Sen : 1989). That is, for measurement of standard of living, both economic and social indicators such as money income, land, assets, average life expectancy, literacy rate, public provision of social goods, purchasing power of money, etc. may be taken into consideration. For instance, if some of these indicators are taken into consideration, the standard of living of the people of Orissa over a period of time has improved.[4]

II

Unitary-Vs-Collective Model :

What will be the unit of analysis when we measure standard of living ? The unit of analysis refers to a group of persons for whom resources are assumed to be combined (Atkinson : 1991). The definitions of a unit are based on a number of different elements such as (i) common residence, (ii) common spending, (iii) blood and marital relationship (by marriage or cohabitation or by blood relations) and (iv) dependence. In India, household is usually considered as a unit of analysis.

Most economists implicitly viewed the household as having only one set of preferences. This assumption has been used as a tool for understanding the behavior of household such as distribution of tasks and goods. But a growing body of evidence suggests that this is a restrictive assumption. It is argued that the pattern of distribution of tasks and resources within the household is important and should not be neglected in the analysis of household (Alderman *et al* : 1995).

The prevailing model of distribution within the household is regarded as the unitary model as this describes how the household is assumed to act as one (Alderman *et al* : 1995). The unitary model of household concerns with the amout of income the houshold receives and not the identity of the individual within the household and distribution of income among themselves. But this unitary model has some limitations. First, the model can allow prices to differ for various household members but it assumes that all household resources like capital, labour, land, etc are pooled together. Second, the model fails to incorporate the process by which resources are distributed within the household. There is possibility of intra-household inequality. But the unitary model assumes that inequitable distribution of resources or tasks within a household represents a willing act on the part of the household. The model suggests that women and girl child "voluntarily" relinquish leisure, education and food but this assumption is viewed as restrictive.

On the other hand, the collective model of household deals directly how individual members of household reconcile different preferences. This approach is subdivided into two broad categories, viz. (i) non-cooperative approach that rely on non-cooperative relation and (ii) cooperative approach that rely on cooperative solution (Alderman *et al* : 1995). Alderman *et al* preceive the household as a factory.

Thus, the collective model of household behaviour may be regarded as the standard approach. In this respect, per capita income and assets of a household does not truly reflect the true picture of standard of living of individual members of a household. However, rejection of the unitary model of household behaviour is not advisable. It seems to be a powerful tool for analysis of household studies. Hence, per capita income/assets may be a step towards quantification of standard of living. Therefore, there is need for application of equivalence scales.

III

Equivalence Scales

If a unit of analysis other than the individual is used, the equivalence scales for application to different-sized units need to be considered (Atkinson : 1991). For instance, an equivalence scale expresses the relation between standard of living of a couple and that of a single person. It may be relevant on an individual basis, if allowances are made for differing needs on the basis of age, degree of handicap and so on.

The differences between equivalence scales have been conveniently summarized in terms of the following formula (Buhmann *et al* : 1988) :

$$Y_e = \frac{Y_t}{n_s}$$

where Y_e = equivalent income

Y_t = total income

n = the number of members of the unit

s = the elasticity of family need with respect to family size.

A value of

S = 0, corresponds to making no adjustment for family size, and

S - 1, corresponds to taking per capita income.

IV

Money Income Plus Potential Return on Assets :

In spite of various difficulties, mentioned earlier, in one of our studies on socio-economic conditions of NALCO-affected people during pre- and post-displacement period, we have tried to quantify the level of living by taking into consideration on the "current income" and "potential return on owned assets" in our simple formula (Samal : 1995). The current income and the possession of assets—both movable and immovable—is approximately nearer to "entitlement" of a household/individual though other factors like invisible assets and public provision of social goods etc. cannot be ignored. In our formula :

Y = current money income for a given period.

$A = a_m + a_i + a_c$

Where A = total assets

a_m = movable assets like consumer durables, gold, etc.

a_i = immovable assets like land etc.

a_c = cash saving and investment (market capitalisation value).

r = present rate of return of the total assets if realized (i. e. converted into cash). Rate of interest on annual fixed deposit in usual and easily accessible commercial banking system/postal system may be a proxy for r.

L = the liabilities for the given time.period such as interest payment, etc.

t = time period in given years

Y_a = income from the assets if realized and invested on usual channel.

Thus :

$$Y_a = A.\ t.r - L \text{ .... (1)}$$

So, when a person's level of living / standard of living is to be considered, we should take into account the total income, both current and potential. Thus total income is

$$Y + Y_a = Y + (A.\ t.\ r - L) \text{ .... (2)}$$

When P & Q are two individuls and if

$$Y_p + Y_{ap} > Y_q + Y_{aq} \text{ .... (3)}$$

The P's standard of living is better than that of Q. We can also take the price level into account for measurement of standard of living. If consumer price index is taken into consideration at particular place, then standard of living/level of living of an individual at two points of time can be considered. Let:

Y_m = total income (both current & potential)

P_c = consumer price index

$$\text{If } \frac{dy_m}{dt} = \frac{dp_c}{dt} \text{ .... (4)}$$

there is no change in standard of living of the individual. But if

$$\frac{dy_m}{dt} < \frac{dp_c}{dt},$$

the individual's standard of living is worse off. and if

$$\frac{dy_m}{dt} > \frac{dp_c}{dt}$$

the individual is better off.

Similar is the case when two communities are considered. Suppose there are two communities C_1 and C_2 with a population of P_1 and P_2 respectively. Then we can apply equivalence scale.

If

$$\frac{Y_{c_1} + Y_{ac_1}}{P_1} > \frac{Y_{c_2} + Y_{ac_2}}{P_2} \quad \text{............ (5)}$$

then the level of living/standard of living of community—1 is better than that of community—2. Conversely, if IHS<RHS, the standard of living of community—2 is better than that of community—1.

The limitation of this model is that it has ignored the inequality between household, intra-house inequality, social and demographic indicators, and others which are not easily quantifiable. However, the money income plus potential return on assets may be considered as better indicators of standard of living of an individual. In this respect, there is need for further study.

[The author would like to thank Sakti Padhee, Shiblal Meher and Mitra for their help in preparing this paper. However, the errors, if any are entirely of the author]

Notes :

1. Existing theories and alternative theories were exhaustively discussed by Prof. P. K. Patnaik in his Lecture on "Measurement of Standard of Living" in Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar on July 25 and 26, 1995.

2. Food is essential for us to work, to grow and maintain life and to keep healthy. The energy in food is measured in calories. Calories are unit of heat. One calorie is that amount of heat which raises the temperature of 1 gm. of water by 1°C. This implies that when 1 colorie of heat is supplied to 1 gm. of water, its temperature will rise by 1°C. 1 kilo calorie is equal to 1000 calories. The modern internationally accepted unit of heat energy is "joule". Joule is abbreviated as J, and Calories as C.

   1 Calorie = 4.180J

The following table shows the calorie value of some foods :

SN.	Food/Portion	Calorie Value
1.	One Chapati	150
2.	One slice of bread	70
3.	100 gm. rice	500—600
4.	1 cup of milk	150
5.	50 gm. meat	100
6.	1 large size egg	100

3. A group of balanced meals taken during the day are called a balanced diet.

4. Per capita income at constant price (1980-81 price) in Orissa has increased from Rs. 1313.50 in 1980-81 to Rs. 1578.12 in 1993-94 (provisional) average life expectancy from 53 years during 1981-88 to 56.15 years during 1988-91, literacy rate from 21. 7 per cent in 1961 to 48.55 per cent in 1991 and real per capita expenditure at 1982-83 price from Rs.242.82 to Rs. 489.54 (EPWRF : 1994). On the other hand, infant mortality rate has declined from 131 in 1981-83 to 120 in 1990-92. In this sense, the standard of living of the people in Orissa over the time has improved though there are intra-house inequality and inequality among households.

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Need for Equivalent Scale in Measurement of Standard of Living

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Introduction :

Measuring Standard of living is an important-step in analysing social and economic welfare of the people. Therefore, find ing an appropriate method of measuring is very crucial. Any discussion about the measurement must involve a number of conceptual and practical problems and must deal with queries like:

(a) What is meant by standard of living ?

(b) Standard of living of whom ?

(c) How is it measured ?

The present paper deals with the latter two questions assuming that an unanimous definition of standard of living has been arrived. Section II discusses the problem of choice of an appropriate population unit for measurement of standard of living. Section III discusses the use of equivalent scale in measurement and section IV is the concluding part which points out the practical relevance of the discussion in policy formulations.

Section II

Choice of Population Unit :

An ideal welfare measure should incorporate all the factors that contribute to welfare directly as well as indirectly. Therefore, standard of living of an individual is judged from his way of living.

Life, both at home and outside together contributes to individual welfare and happiness. How well-off we are at home and how good is our surrounding environment determine our overall standard of living. Therefore, Standard of living is a complex composite phenomenon. But, income is the most important single index of the well-being of an individual in a society. Therefore, for the rest of this paper we will assume income as a good index of standard of living.

The problem to be discussed is the definition of the income/welfare receiving unit. The question is "Standard of living of whom is to be measured ?" of course, of the people. The people may be economically active persons, people living in a house hold or family or simply individuals.

The working of the market mechanism in the field of production will be reflected in the income differences between economically active persons while differences in the standard of living of the people can be studied from the differentials of income among individuals or house holds. The households constitute an intermediate income receiving units reflecting the transition from status of economically active persons to the status of individuals. Moreover, the economic activities of an individual are not always easily separable from that of other family members. An individual enjoys family income. An unemployed youth has some command over economic resources because of his family income.

Therefore, in most studies families or households are taken as relevant units to assess their standard of living. Prof. Kuznets (1974, 1976) has given elaborate support for choosing the household as the appropriate unit on the basis of three criteria. These are easy identifiability, independence and inclusiveness. Households are the practical units of population dealing with decisions on earning and spending and therefore, enjoy a particular standard of living. Hence, from a practical standard of living as well as from a welfare point of view, households are the most appropriate income receiving and spending units and standard of living is usually measured at the household level.

Section III

Use of Equivalent Scale :

When households is the unit of concern, what should be measured to assess its standard of living ? Total household income can provide some idea to the standard of living or the goods and services enjoyed by the household can give a clue which again depends on the household income capacity. But analysis on the basis of total household income or total amount of goods and services consumed give a wrong idea about individual standard of living because households differ in size and age/sex structure. We certainly need an adjustment of the households for variation in size, composition and economies of scale in consumption. The argument often is that household per capita income is preferable to total household income. But it is far from ideal because apart from the heroic assumption of equal distribution among the members, another implicit assumption it makes is that of equal need as between adults and children. Within a household, the distribution is not ideal. The consumption pattern is very often skewed against women and children or some aged members of the family. The standard of living of each individual is not the same even if they live within the same household. If one can make a detailed analysis of the expenditure pattern of the household the differences can be visible.

There may be proportionately more expenditure on adult needs compared to children needs or more on male members compared to female members. A preferable approach would be to apply some kind of co-efficient reflecting relative expenditure of persons of different needs in the calculation of per capita income which can represent individual standard of living.

Equivalent scales are designed to accomplish such an adjustment by taking into account those household characteristics deemed to affect need. Household per capita income can be used as an adjustment for differing household size. But this ignores economies of scale in consumption. Larger households need to spend proportionately less to enjoy the same standard of living as a smaller household. But it is not easy to measure the economies of scale. The equivalent scales currently used for policy purposes in developed countries like U.K. and U.S.A. and the scales discussed in the scholarly literature are extremely varied in how much weight they place on increments to household size in the calculation of need. They vary from proportional weight to no weight on size in adjusting income for need. However, whatever be the factors and coefficients for adjustments, there has always been a case made for distinguishing "observed income and standard of living" from "equivalent income or standard of living". Most of the works are built upon the work of Garvy (1952) and Paglin (1975).

One of the important aspects of the concept of equivalent scale is that joint consideration of the income and welfare relevant non-income characteristics is the principle behind calculation of the equivalent income. Equivalent income of a given household equals "observed income divided by an equivalent scale rate which depends on the household characteristics".

That is $ei = yi/qi$

Where ei is an equivalent income, yi is the observed income and qi is a value judgement factor about the well-being derived per unit of money for each household type relating to some reference household type. A number of households will be said to be enjoying similar standard of living if only they have equal equivalent income not the observed money income.

Section IV

Policy Implications and Conclusion :

Any public policy with a welfare motive should aim at the ultimate individual welfare. But most of the works on poverty and standard of living are based on household statistics with the assumption that intrahousehold distribution is ideal. But there are many evidences to the fact that there is discrimination within the household and the standard of living of all the members is not uniform. Some studies find greater extent of malnutrition among females when compared to males and this malnutrition includes less feeding among females starting from childhood Sen, A. K., 1981, Sen A. K. and Sengupta Sumil, 1988). Another survey by Batliwala (1985) shows that Indian women's calorie intake is 100 calories (Per women per day) less than they expend. Many rural health surveys reveal a much higher incidence of illness among women and girls than men and boys (Dandekar, 1975, Chakraborty et al, 1978 and Khan et al 1983). If this is the situation with basic necessities like food and medical care what is to talk of other luxuries of life ! Therefore, any study on assessment of poverty and standard of living to be realistic and helpful for policy planners should consider individual needs and situations and thus arises the need for use of equivalent scales which adjusts for differences among households with regard to size and composition (age/sex structure).

The "ideal" concepts and measures very often defined in theoretical literature are far removed from the "actual" concepts and measures used in practice. The ultimate choice by the planners have always been made on the basis of the purpose of policy and the availability of information. Very often we lack information on within household characteristics and distribution.

The expenditure pattern of the household is never analysed from the point of view of assessing any bias in expenditure against female members or children or old members. Construction of any equivalent scale is difficult due to lack of information. There is an urgent need for more concrete action to resolve the existing insufficiencies in statistics on poverty and standard of living in general and specific problems related to sex and age based differences in standard of living.

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Measurement of Standard of Living Among the Indian States (1981-91)

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Measurement of standard of living among the countries, states or over periods still remains controversial despite intensive as well extensive discussions. Standard of living has been of great importance to the statesmen in India since 1977 while Rajkrishna Championed it as a determinant of state's share in the Finance Commission awards and Dr. Ashok Mitra's call for a fresh look into the centre-state financial relations.

Standard of living (quality of life) can be measured either by the constituents of well-being or by the access of the people to the determinants of well-being. The subjective conditions like health, welfare, liberty etc. are the indices of the fomer while the latter gets its expression through the objective indices of availability of food, clothing, housing, transport, drinking water, educational facilities and the like. In India, different indicators like per capita income, per capita consumption expenditure, caloric intake, availability of transport services, health care etc. have been used as measures of the quality of life. Of these criteria cited above, per capita income is often used in India as an indicator of standard of living. But now, it is widely recognised that per capita income is not an adequate indicator of aggregate well-being. It has thus become customary to use a range of socio-economic indices for assessing the quality of life in a society.

In this paper an attempt is made to measure the standard of living in some major states of the country and to rank them on the basis of heterodox collections of socio-economic indicators advocated by World Bank in its World Development Report.

Objectives of the Study :

The study has the following objectives:

1. To measure the standard of living in different states for a ranking amongst them.

2. To examine relationship between per capita income and standard of living in inter-state comparison.

3. To determine the extent of influence of other variables on standard of living.

4. To assess the changes in the standard of living in the states over the decade ending 1991.

Hypothesis :

The hypotheses to be tested are as follows :

1. Higher the per capita income, the better is the standard of living in a state.

2. The influence of other variables on standard of living in a state are insignificant.

Data :

The relevant data are collected from the Economic Survey of different years published by Government of India and the Regional Office of census. The data relate to the years 1981 and 1991.

The Study :

In this study, the socio-economic indicators like per capita real income, life expectancy at birth, the infant mortality rate and the literacy rate are taken to measure the standard of living as adopted by the World Bank. In addition to these indicators related to the socio-economic spheres of life, the political and civil spheres are being considered to have the total package of the measures of well-being. The political liberty and the civil rights of the people being ordinal expressions are difficult to measure for which proxies have been used. Per capita income and literacy rates are taken as the proxy for political liberty and civil rights respectively. These proxies have been used for the states to code their scores ranging from 1 to 10 in descending order. This idea is taken from the valuable compendium of Taylor and Jodice (1983). Political liberty is taken to be citizen's right to play a part in determining who governs them and what the laws are and should be. Civil rights refer to the rights, the people have vis-a-vis the state. The justification for the proxies lies in the fact that higher income people enjoy better political liberty and the level of literacy represents the objective measurement of the intellectuals in a state who can better fight for their rights.

In this study, the periods taken for analysis are 1981 and 1991 as they are the census years. The per capita income so considered are in current prices. Life expectancy at birth (E) in years, infant mortality rate (M) per thousand and the literacy rate (L) in percentage are being used. Borda ranking has been used to determine the relative position of the states placed cronologically in ascending order. Borda rank is calculated by adding the ordinary ranks of the state. The state having the highest score is the last one in the list and vice-versa. The relevant information relating 1991 used in our study are presented in Table-1 and Table-2 which present the ranking in living standard.

From table no. 2, it is found that Bihar is the state having lowest standard of living succeeded by Uttar Pradesh and Orissa. Madhya Pradesh is tied up. The highest position goes to Maharastra being preceded by Punjab and Kerala. As regards the per capita income highest position goes to Punjab and Haryana. Maharastra comes next in Order. As regards the lowest per capita income, Bihar, Orissa and Uttar Pradesh are in order. But in Borda ranking, the positions of states are being altered because of significant influence of other variables.

Of course, the coding of scores for political liberty and civil rights through the proxy of percapita real income and literacy rates can not be perfectly justified. But this process does not affect our very objective of judging their relative position in the Borda ranking. It is very much imperative from table-2 that the position in Borda rank for the states is very close to their position in relation to their per capita income but not the same. Hence, it indicates that the per capita income is not the exact indicator of standard of living but a very close approximation.

Moreover, the correlation coefficients between the variables are calculated by spearmans rank correlation formula to examine the closeness of their relationship. The results are presented in table-3 in the form of a correlation matrix.

In table-3, the first culumn presents the spearmans correlation coefficient between Borda rank and all other socio-economic indicators. The result reveals that all the variables are closely related to the quality of life and literacy has the highest significance. The second column presents the correlation between percapita income and other variables. All the correlation coefficients are highly significant which means that higher the percapita income, higher is the quality of life. This confirms our hypothesis.

An estimation is worked out to know about the improvement in the standard of living. In this context changes in per capita income, life expectancy and infant mortality rate in 1991 over 1981 are worked out.

Basing on these three criteria the improvement in the standard of living by 1991 over 1981 for different states is ranked. The relevant informations are presented in table-4 and the corresponding correlation (spearman) coefficienrs are presentedin the correlation matrix in table-5.

(a) It is inferred from table-5 that all the variables are positively and significantly correlated with per capita income.

(b) The rate of change in all variables except improvement in literacy rate are positively correlated and literacy rate has a negative relationship with the rate of change in per capita income.

(c) Infant survival rate and improvement in life expectancy at birth are highly and significantly correlated.

(d) Political and civil rights are not the same but they are strongly related.

(e) Literacy rate is positively related with all the variables except rate of change of per capita income. It indicates that literacy rate has increased at a diminishing rate with increase in rate of change of income.

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TABLE—1

Living Standard's Indicators in 1991 in Major States of India

Sl. No.	Name of the States	Per Capita Income (Y)	Life Expectancy at birth (E)	Literacy rate (L)	Instant mortality rate (M)	Political liberty (R_1)	Civil Right (R_2)
1.	Andhra Pradesh	5529	59.1	44.09	64	6	7
2.	Assam	4594	63.6	52.89	81	7	6
3.	Bihar	2886	54.9	38.48	70	9	8
4.	Gujarat	6306	57.7	61.29	58	5	5
5.	Haryana	8722	62.2	58.85	65	3	6
6.	Karnataka	5898	61.1	56.04	67	6	6
7.	Kerala	4607	69.5	89.81	13	7	2
8.	Madhya Pradesh	4383	53.0	44.20	106	7	7
9.	Maharastra	7997	62.6	64.87	50	4	5
10.	Orissa	3816	54.4	49.09	110	8	7
11.	Punjab	9769	65.2	58.51	55	2	6
12.	Rajasthan	4402	55.2	38.55	82	7	8
13.	Tamil Nadu	5817	60.5	62.66	56	6	5
14.	Uttar Pradesh	4001	53.4	41.60	93	7	7
15.	West Bengal	5284	60.8	57.70	58	6	6

N.B. : Major states include states with population of 10 millions and above as per 1991 census as designated in Economic Survey of India.

TABLE—2

Ranking in Living Standard

Sl. No.	Name of the State	Borda Rank	Per capita Income (Y)	Life expectancy at birth (E)	Instant Mortality (M)	Literacy Rate(L)	Political liberty (R_1)	Civil Right (R_2)
1.	Bihar	1	1	5	1	6	1	1
2.	Uttar Pradesh	2	3	2	3	3	3	3
3.	Orissa	3	2	4	6	1	2	3
4.	Madhya Pradesh	3	4	1	5	2	3	3
5.	Rajasthan	4	5	6	2	4	3	1
6.	Assam	5	6	3	7	5	3	7
7.	Andhra Pradesh	6	9	8	4	9	8	3
8.	Karnataka	7	11	11	9	7	8	7
9.	West Bengal	7	8	10	10	10	8	7
10.	Haryana	8	14	12	8	8	14	7
11.	Tamilnadu	9	10	9	13	12	8	12
12.	Gujarat	10	12	7	12	10	12	12
13.	Kerala	11	7	15	15	16	3	15
14.	Punjab	12	15	14	11	13	15	7
15.	Maharashtra	13	13	13	14	14	13	12

TABLE—3

Correlation Matrix of Living Standard Ranking

	Borda	Y	E	M	L	R_1
Y	0.8267	—	—	—	—	—
E	0.8375	0.7500	—	—	—	—
M	0.8625	0.6767	0.7214	—	—	—
L	0.8642	0.7053	0.8696	0.8125	—	—
R_1	0.7732	0.9214	0.6035	0.5	0.5660	—
R_2	0.8589	0.5464	0.6035	0.9107	0.7625	0.425

(All Correlations are significant at 5% level)

TABLE—4

Ranking in Change of Standard of Living in 1991 over 1981

Sl. No.	Name of the State	Y	$\triangle$Y	$\triangle$E	$\triangle$M	$\triangle$L	Av. of R_1	Av. of R_2	
1.	Andhra Pradesh	8	14	5	6	2	7	3	45
2.	Bihar	1	4	8	4	1	1	1	20
3.	Gujarat	11	5	1	8	10	11	11	57
4.	Haryana	13	11	11	12	13	13	7	80
5.	Karnataka	10	12	6	3	9	7	7	54
6.	Kerala	6	1	14	14	14	3	11	63
7.	Madhya Pradesh	5	6	3	2	7	3	3	29
8.	Maharashtra	12	8	9	13	12	12	14	80
9.	Orissa	2	2	4	1	5	1	6	21
10.	Punjab	14	10	10	7	11	14	9	75
11.	Rajasthan	4	9	2	10	3	3	1	32
12,	Tamil Nadu	9	13	12	11	6	7	11	69
13.	Uttar Pradesh	3	3	7	5	4	8	8	28
14.	West Bengal	7	7	13	8	8	7	9	59

TABLE—5

Correlation Matrix of Indicators of Improvements in Living Standard

$\triangle$ Y	0.5868	—	—	—	—	—
$\triangle$ E	0.2527	0.0461	—	—	—	—
$\triangle$ M	0.4703	0.1538	0.5494	—	—	—
$\triangle$ L	0.7010	− 0.0417	0.4505	0.5626	—	—
R_1	0.9362	0.4703	0.1406	0.3890	0.3868	—
R_2	0.6461	0.0307	0.4659	0.5736	0.7648	0.5736
	Y	$\triangle$ Y	$\triangle$ E	$\triangle$ M	$\triangle$L	R_1

(Correlation is significant at 5% level)

A New Methodology of Estimating The Socio-Economic Dimensions of Standard of Living

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U. K. Dash
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1. Introduction :

The basic aim of any planning process in general and a specific project in particular has always been to maximise the social welfare function (SWF) of the society. Though measurement of such SWF is not an easy task, the economists and policy-makers have made attempts from time to time to measure them with certain yardsticks/scales. One of the simplest approach to measure the welfare of the people has been to estimate the changes in their income/consumption levels over a plan period. But owing to measurement problems associated with income/consumption levels, of late, the income/consumption approach has been substituted by standard of living approach otherwise known as Physical Quality of Life Index (PQLI) approach. Measurement of standard of living through PQLI, based on socio-economic and cultural values, incorporates various dimensions of development which are generally ignored in the conventional methods of measurement. Thereby, the new approach is capable of overcoming some of the major defects associated with the income/consumption approach. In spite of these developments in the literature, one still observes that income/consumption has not lost its significance in totality. It still provides the base level data to which PQLI is a supplement to improve the estimates. However, it is well established that PQLI is a better reflector, of the standard of living of the people who are affected by any project. Yet many of the socio-economic aspects are not incorporated in project level estimations.

In this paper we have made an attempt to examine the role and significance of socio-economic dimensions of standard of living by undertaking some empirical investigations with the help of our field data drawn from a

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power project site. We propose the use of a "composite index" which in our judgement can better reflect the standard of living of the people. In the process of calculating the standard of living we made use of the head count index. Head count index is nothing but the relative change in the position of a particular household over the years. We have introduced the socio-economic variables like household size in terms of number of persons and their sex, age, occupation, religion, education, caste, tenancy status, housing facilities, animal wealth possessed, material assets and agricultural implements possessed, drinking water supply, as well as health facilities etc which are at the core of measuring standard of living. Particularly, these factors are more relevant in calculating the standard of living of the rural masses. Finally an attempt has been made by us to compare the income/consumption approach (ICA) of standard of living with the composite index approach (CIA). The CIA approach adopted by us is heavily loaded on various weighting systems which are based on pure value judgements.

II. Earlier Studies on Measurement of Standard of Living :

In the vast literature on measurement of standard of living many a studies have covered the poverty measurement aspects which are nothing but proxies for the measurement of standard of living at the lower level of our society. More precisely in India, since one of the basic objectives of our five year plans has been the eradication of poverty, their measurement has always drawn the attention of the economists, planners, policy-makers and researchers. Hence one comes across a number of studies and analysis of the poverty concept and their measurement in Indian context.

The subject of defining a poverty line was first discussed at length in the Indian Labour Conference in 1957. Subsequently, in July 1962, the Planning Commission set up a distinguished Working Group which, after considering the recommendations regarding balanced diet made by the Nutrition Advisory Committee of Indian Council of Medical Research (ICMR) in 1958, advocated a national minimum expenditure for every household of five persons at Rs 100/- per month or Rs 20/- per capita per month in terms of 1960-61 prices. The Working Group suggested that for urban areas the minimum would be raised to Rs 125/- per month per household or Rs 25/- per capita per month to cover the higher prices of the physical volumes of the commodities on which the national minimum is calculated.

During the 1960s and 1970s, a spate of studies were undertaken by academicians and scholars where they attempted to adopt a more systematic evaluations of the poverty norms. Though Rs 20/- at 1960-61 prices norm were frequently quoted, a few of the subsequent studies had systematically worked out expenditure norms for poverty lines measurement. Among the researchers on poverty the noted scholars were Minhas (1970), Ojha (1970), V. M. Dandekar and N. Rath (1971), Bardhan (1973), V. K. R. V. Rao (1977), P. V. Sukhatme (1977), Ahluwalia (1978), Bhasker Datta (1980), Planning Commission (1979, 1981, 1986,1991), S. P. Gupta and K. L. Datta (1984), Minhas and Jain (1991), and S. D. Tendulkar (1992). But all those studies were directed towards measurement of poverty or particularly towards drawing a poverty line depending upon per capita income or consumption level of a household. These were nothing but absolute measure of poverty, which is associated with the following problems or difficulties : Little attention had been given to measure relative changes in the standard of living. Counting the number of persons below a given poverty line fails to measure the intensity of poverty and thus changes in the position of those below or above the line. Further the choice of poverty line may be based on criteria such as minimum levels of nutrition, income, or expenditures, the setting of which requires some degree of conjuncture and normative decisions. Absolute income itself may not .reflect the real standard of living when some goods and services are provided without cost or at different subsidized prices. Finally, the standard of living is not only determined by the household incomes or expenditure per capita but also on other aspects like health, life expectancy, literacy and access to public goods or common-property resources.

The relative approach interprets poverty in relation to prevailing living standard of society, by recognizing explicitly the interdependence between the poverty line and the entire distribution of income (or total consumption expenditure). According to this criterion, poverty is measured by various inequality measures, coefficient of variation, standard deviation, Gini coefficient of concentration, etc. The relative poverty line is defined as that income level which cuts off the lowest per cent of the population in the income (or expenditure) distribution of society. Although this is the most simple way of measuring poverty, it has been criticized on different grounds. Sen (1976), Kakwani (1980), and Anand (1983), among others, have proposed alternative indices by overcoming the drawbacks inherent in the above measures. While Sen's index is based on an axiomatic approach that employs an ordinal welfare concept, the other indices, retaining the axiomatic approach, also consider income transfers from rich to poor persons. However, all these are distributional indices and.are useful only when poverty is to be compared over a period of time or across-economic groups in a given year. The basic difference among these indices lies in the normalization and income weighing schemes.

With a view to overcoming some of the above mentioned problems associated with measurement of standard of living, in recent years economists have proposed to adopt a multivariete approach. It has been argued that standard of living must be defined as a vector of satisfaction and deprivation which result from the level of living of the poor, i. e, analysis of standard of living should include a comprehensive socio-economic profile McGranahan, 1969). Adhering to this approach Johansson (1972) suggested to incorporate nine components of standard of living: viz, (i) Health and the use of medical care; (ii) Work and working conditions; (iii) Education; (iv) Economic resources; (v) Political resources, (vi) Family background and family relation; (vii) Housing and environment; (viii) Security to life and prosperity; and (ix) Leisure and recreation.

III. Scope & Methodology of the Present Study :

Till now we have mentioned that standard of living was measured through ICA. However, there are some economists and sociologists who have advccated to include some socio-economic variables in the measurement of standard of living. But they have not focused on how to quantify those socio-economic variables. In this study we have made an attempt to include some of those variables which affect the standard of living. Since all those variables are of different units we have tried to incorporate them by assigning different weights. We have tried to include some of the socio-economic variables along with ICA. With the help of such CIA we have compared the appropriateness of both the approaches.

In tune with this objective, the scope of our study has been involved in determining complete demographic and socio-economic profiles of the project affected families (PAFs) like existing homestead, value of building/houses, agricultural land possessed, movable and immovable assets possessed and sources of income generation. The basic data of the study are extracted from the project report "Retrofit Socio Economic Study of the PAFs of Auraiya Gas Power Project (AuGPP), NTPC, Dibiyapur, Etawah, Uttar Pradesh submitted by Dr. Binayak Rath, I. I. T., Kanpur, to the NTPC Ltd, New-Delhi, in 1995.

In this paper we have used the secondary data of the above mentioned study where a field survey method based on multistage clustering approach was adopted by Dr. Rath. All relevant data relating to the socio-economic conditions of the affected villages as well as the households/families had been collected with the help of a comprehensive questionnaire solely designed for their purpose. With the help of those primary data of households we have made an attempt to calculate the standard of living of the affected families of the area by using the conventional ICA. However, owing to the drawbacks as mentioned earlier associated with the conventional method we supplemented the quantitative method by taking into consideration one qualitative (socio-economic) variables in order to provide greater objectivity, standardization, higher scope for analysis and a comparative perspective.

With a view to accoplishing our objective first we have selected a village viz. Jamuah, which is one of the four affected villages of the AuGPP due to land acquisition. There were 80 families which were directly affected by the project in Jamuah, out of which 66 were covered by Dr. Rath. Since our objective has been to compare the changes in the socio-economic status of those affected families we have taken into consideration 14 socio-economic variables. In order to measure changes of standard of living by both the ICA & CIA we made use of the secondary data made available from the report of Dr. Rath. Further, to calculate the changes in the standard of living of the affected population through the CIA we have used different weights which are described in the following paragraphs. Finally an attempt has been made to compare the results both using both the approach of the standard of living and to pronounce which method is more appropriate for determining the changes in their socio-economic status of the affected people.

To calculate the standard-of-living of the families with the suggested new approach we have used different weights (ranging from 0 to 8 scale) for different age group, type of family, type of employment, possesion of animal wealth, farm implements, luxury goods, houses,etc. For instance, in the age graup of 0-5, if there is one child in a family we have given weight of 4, in case of 2-3 children the weight age is 3, for 4-5 children a weight of 2, and for more than 5 children the weight is 3. The rationality of this descending order is that in this age group more children means more burden for the family. On the other hand, in the age group of 6-15, the weightage is in increasing order with respect to number of children in the family; because in this range in the rural area the children usually help the family in terms of domestic works or working as child labour. Similar is the case for the age group of 16-60, where we have assumed that all of them work productively . Further, it is assumed that men folk earn relatively more than the women. Hence, we have assigned higher weights to the male members with an increasing order of weights. By this norm we have assigned the weight of 2 when the male members are in the group of 1-2; 4 when it is 3-4; 6 when it is 5-10 and 8 when their member is more than 10. The corresponding weights for the female members have been 1, 2, 3 and 6. In the age group above 60, persons become burden for a family. So if there is one person in this range then the weight is given as 4; in case of more than one person wieghtage is in decreasing order.

With regard to the caste system of a society, which differentiates both socially and economically, we have assigned a weight of 3 for HC, 2 for BC and 1 for SC. Similarly weight of 1, 2, and 3 are used for nuclear family, joint and extended family respectively. In respect of occupations a weight of 1 is assigned to labourer, 2 to agriculturist, 3 to business and 4 to a person who is engaged in services. However, if a person pursues agriculture as well as works as labour we have given a weight of 2.5; for both agriculture and services the weight is 5; for services and business it is 3; and for a housewife the weight is 1 while for no work the weight is 0. Weights are also used for animal wealth; for drought animals it is 1, for milch animals 2, for ship and goat 1 and for others it is 1. When the families are using tr actors, power tillers for their agricultural purposes the weight is 1, for electric motors/sprayers the weight is 2 and for bullock carts the weight is given as 1.

Weights are also assigned to material assets possessed by a household. If the family has a television or a refrigerator or four-wheeler, then the weight is 5; in case of a radio it is 4 and so on. Further, we have considered the structure of a house. Where a kachha house is given weight 2, Pukka house 4, and for mixed structure of Pukka and kachha it is 3. Area of a house and number of rooms are also considered. Again families having separate kitchen, separate place for animals, toilets within or adjacent to house, washing place, cattle shed etc. are also taken into account.

Finally, by adding all the weights of different socio-economic variables for the families we have computed the CI for the affected families for the two reference years (i. e. before 1985 and after the project 1994). With the help of those indices we have drawn a rank order of the families in both the years and then compared the change in their socio-economic conditions.

IV. Measurement of Socio-Economic Standard of the PAF Households :

In order to study the impact of AuGPP in the area, Dr. Rath has estimated the changes in the socio-economic status of the PAF households by adopting the ICA. In such an estimation he has used the current prices of agricultural products to estimate their income levels. On the basis of income-consumption levels of the PAFs in 1986 and 1994, he has identified the households below and above the poverty line which is presented in Table 1.

Table 1. Income-Consumption Levels of PAF Households

Range of Income/ Consumption	No. of PAF Households		
	Income Level		Consumption
	1986	1994	1994
Less than 11,000	39	17	15
11,000 to 20,000	14	13	17
20,000 to 40,000	04	26	30
40,000 to 60,000	01	05	04
60,000 and above	00	03	00
Not available	08	02	00

When we compare the income level of 1986 and 1994, we have observed that the gross-income of a large number of households has increased after setting up of the project. It may be noted that there are only two families whose income has declined over the two periods, while for another 2 families, it has remained the same. By accepting Rs 11,000/- as the poverty line as advocated in the 8th plan, the number of families below the poverty line have declined with the set up of the project. It is also clear from the table that the relative positions of the PAFs have changed after the project. However one cannot rely on the above figures for calculating (estimating or determining) the standard of living of the PAFs of that particular village because of the following limitations associated with ICA.

1. Income as a measure of economic welfare is subjected to substantial fluctuations.
2. Generally the income figures are underestimated as there is tendency not to report the farm incomes.
3. ICA ignores the socio-economic factors like security, health, and education.
4. The reported IC figures are mere approximation of PAFs.

In view of these limitations, we have suggested the use of CIA.

Composite Index Approach :

Adhering the suggested CIA we have calculated the total weights for each of the families. For example, consider the case of Harbansh Lal. For him the weights for demographic features, family structure, migration, domestic animals, agricultural equipment, luxury goods, housing conditions, are 13, 5, 0, 2, 8, 0, 1, 0, 2, and 12 respectively i. e. the family has scored a total 43 in 1985. In the year 1994 the respective weights are changed to 12, 10, 0, 2, 8, 0, 0, 0 and 12 respectively, i. e. the family has scored 44. This indicates that the standard of living of Harbansh Lal has increased very little (difference of one unit only). But in terms of changes in his IC levels, Dr. Rath has reported his income as Rs 15.6 thousand in 1985 and Rs 36 thousand in 1994. In this way for all 66 PAFs composite index is calculated and thereby we get to know about the change in standard of living.

Such results of all the families indicate families whose relative positions in terms of CIA have increased compared to their respective rank order through ICA. For instance, Ram Chand's income in 1994 was Rs 14,400 with the rank of 31 and consumption rank as 51 which has increased to 57 units with the rank of 15 in composite index. On the other hand, there are 25 families whose relative position in terms of CIA has improved compared to the income approach but declined compared to the consumption approach. For instance, take the case of Harbansh Lal whose income was Rs 36,000 with the rank of 9, but his position has deteriorated to the rank of 46 with the consumption level being Rs 13,500. However, when the socio-economic factors are taken into account his rank became 25 with the index of 44 units. Hence in all there are 57 families whose relative positions have increased in terms of CIA compared to the income approach.

V. Conclusion :

Under-development and deprivation in the rural areas, and more particularly of a few sections in the rulal areas are not a new feature. So also the measurement of standard of living. In this paper we have introduced the step-by-step approach of standard of living of the people in rural areas by undertaking a case study from a typical project area. Emphasis is given on socio-economic variables through the CIA. With the help of empirical verifications our estimates have established that CIA is a better reflector of the standard of living of the rural masses over a peried of time than the standard ICA. However, caution should be exercised in measuring the suggested approach of CIA, whose estimation is based on intangible factors, and whose weights are also based on scores dependent on individual value judgements. The present study though suffers from a number of limitations like a small sampling problem, weight determination problems, adequate data problem, still it can be considered an improvement in the measurement of standard of living of our rural areas.

Finally we like to conclude that the method of composite index is superior to the conventional ICA methods for estimating the changes in standard of living of the rulal population over a period of time.

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Measuring Standard of Living : An Analysis

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Measurement of standard of living is a multi-dimensional issue. Though it is said that per capita consumption expenditure is a better measure of standard of living compared to per capita income, yet there lies a considerable difference of opinion as regards the type of consumption expenditure to be taken in this context. The World Bank study (1990) on identification of poor in case of SriLanka has used two types of consumption expediture—current as well as mean consumption expenditures. The study has brought out varying results. Besides it is often pointed out that consumption expenditure depends upon a variety of socio-economic factors like percapita income, family size and its composition, level of literacy etc. As a result it varies across space. Within a region the consumption expenditure varies from family to family depending upon sex and activity. Landlessness, vulnerability to illness, seasonality of work also affect consumption expenditure. More recently, a distinction has been brought out between tolerable quality of life and mere survival while measuring standard of living. It is stated that a mere rise in consumption expediture does not indicate a rise in standard of living. Alongwith the rise in consumption expediture, other aspects of life like level of literacy, life expectancy, infant mortality rate etc. are to be looked into, to ascertain whether any real improvement in the quality of life has occurred or not. Thus, all these issues complicate the measurement of standard of living in actual practice. However, in the present study, we have taken consumption expenditure as a measuring device for standard of living and as such analysed the changes in the level of consumer spending across time and correlate it with other socio-cultural variables among the major states in India. We have also taken up the case of Orissa to examine this issue in more detail taking some other related factors like price rise, changes in the composition of commodities consumed to articulate policy in this context. The specific obejctives of the study are the following :

(i) To findout the changes in the volume of consumer expenditure among the states across time.

(ii) To examine the association of different socio-cultural factors alongwith consumption spending.

(iii) To ascertain real changes in the standard of living of the people in Orissa with the rise in percapita consumer expenditure taking into account compositional changes in consumption spending and price rise.

Data and Methodology :

Secondary data obtained from various rounds of NSSO survey are taken for different analysis in the study. Co-efficient of variation and co-efficient correlation are worked out to measure interstate variation in consumer spending and association of variables like Level of literacy, life expectancy and infant mortality rate with consumption expenditure. The period of study is between 1977-78 to 1988-89.

Results and Discussion :

Table-1 shows the per capita monthly Consumer expenditure of different states at the rural as well as urban levels. The data reveal some broad results. It is observed that the relatively poor states like Orissa, Bihar, Assam and Madhya Pradesh show a higher growth rate in the per capita consumer expenditure than the relatively rich states like Punjab, Haryana, Maharashtra, Karnataka etc. between 1977-78 and 1988-89. However, in spite of higher growth the percapita consumer expenditure of the poorer states in absolute sense remains below the richer states at .both points of time. More so, the gap between rich and poor states has widened across time. Particularly the gap in the rural consumer spending among the states has been more glaring over the period. The coefficient of variation for rural areas works out to 10. 27 and 18.61 percent for the year 1977-78 and 1988-89 respectively. For urban areas the C. V. works out to 7.83 and 11.32 percent for the said years.

As cited by some earlier srudies and the World Development Report (1990), the per capita consumer spending does not reveal adequately the level of living of people unless supplemented by certain socio-cultural indicators. So, in view of the mixed results obtained across the state on the growth and distribution of percapita consumer expediture during the period from 1977-78 to 1988-89,it becomes imperative to add up-some socio-cultural factors with PCE so as to ascertain the totality of picture. In this context, the co-efficient correlation between PCE and life expectancy at birth (LE) literacy level (LL) and infant mortality rate (IMR) is worked out. Revelation shows that between PCE and LE, there is high degree of positive correlation (r=0.70). Between PCE and LL and PCE and IMR the degree of association is found very low. The r' value in case of former comes to 0.46 and that of latter 0.59. This sufficiently indicates that as there is high degree of association between PCE and LE, the rise in consumption spending will lead to rise in life expectancy. In contrast in case of other two, the relationship though found positive yet is very weak. This evidently tells that a rise in percapita consumer spending may not lead to higher rate of literacy and less infant mortality. Thus, taking the relationship between PCE and LE a rise in consumption expenditure tells about better living standard of the people. However if we take the relationship between PCE and LL and PCE and IMR, both these donot conclusively pointout a better living standard when PCE goes up. In this context, we observe from the data that the states with higher percapita consumption expenditure are generally having higher like expectancy at birth and vice versa. In contrast, we donot get any conclusive trend between PCE-LL and PCE-IMR among the states.

Coming to Orissa, we observe that there has been quite a significant rise in percapita monthly consumer expenditure in the state between 1977-78 and 1988-89. The rise is much higher than noticed among the relatively rich states. But the crux of the problem is to what extent this rise in PCE has raised the real standard of living of the people in the state. To answer this question, we have taken two parameters of measurement. The first relates to the changes in the composition of commodity basket purchased by an average consumer in Orissa over the period. Secondly, we have worked out the growth in the retail prices of different commodities during the period. Observation of the data reveals very little changes in composition of commodity basket purchased by an average individual in the state between 1977-78 to 1988-89. This is found both in rural as well as urban areas. The food items continue to dominate the consumption expediture of an average consumer. The percentage of expenditure on food items during 1988-89 comes to 69.95 percent in case of rural areas and 60.07 percent in case of urban areas. This is higher than that observed at the all-India level. To add to this, between 1978-88, there has been sharp rise in the prices of different commodities in Orissa. For commodities like rice gram and cloth the prices have gone up by more than 120 percent. In case of kerosine oil the price rise has been 84 percent.

Thus, looking at the sharp rise in the prices of different essential commdities, the rise in percapita monthly consumer expenditure noticed during 1978-to 1989 in the state has been very much marginal to effect any real improvement in the standard of living of the people at large.

Conclusion :

The findings of the study show quite high degree of disparity in the inter-state percapita monthly consumer expenditure. The disparity is more pronounced in rural areas as compared to urban areas. Over the years disparity has grown up among the states. Again it is revealed that the rise in percapita consumer expenditure is not a true indicator of measuring standard of living. States showing high consumer expenditure are found with high infant mortality rate and lower literacy. In contrast states with low percapita consumption expenditure exhibit higher percentage of literacy and lower infant mortality rate. This suggests that the percapita consumer expenditure as a measuring device for standard of living is not enough in itself. We have to take other socio-cultural factors into account in this context. In case of Orissa, we observed that though there has been quite a sizeable rise in percapita consumer expenditure over the years, yet taking into account the composition of commodity basket purchased by an average Orissan and price rise noticed, there has not been much improvement in standard of living of the people of Orissa. This suggests that policies should be framed to bring about all round development in the state particularly on social infrastructures so that the people's quality of life is really improved.

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TABLE—1

Percapita Monthly Consumer Expenditure of Different States
During 1977-78 and 1988-89

States	RURAL		URBAN	
	1977-78	1988-89	1977-78	1988-89
Andhra Pradesh	69.7	183.1	93.2	245.2
Assam	58.9	159.7	94.4	277.1
Bihar	57.4	152.9	83.1	227.9
Gujarat	70.3	171.5	100.9	268.8
Haryana	92.4	244.6	100.4	276.0
Karnataka	64.9	157.5	87.6	249.8
Kerala	74.2	218.0	82.7	280.0
Madhya Pradesh	59.9	152.9	90.9	234.3
Maharashtra	76.9	171.1	110.3	311.8
Orissa	52.5	147.3	87.0	256.4
Punjab	114.4	264.7	121.7	298.5
Rajasthan	108.7	218.8	95.7	264.1
Tamil Nadu	63.3	170.9	86.1	251.3
Uttar Pradesh	67.3	164.7	82.5	238.2
West Bengal	59.3	170.0	97.1	268.8
C. V.	10.27	18.61	7.83	11.32

Source :—N. S. S. data, 32nd and 44th Round

TABLE—2

Relationship between Percapita consumer expenditure and Socio-Cultural Factors among the States.

States	P.C.E. (1988-89)	Life Expectancy at Birth (1981-85)	Level of Literacy (1991)	Infant mortality Rate (1989)
Andhra Pradesh	199.8	58.4	44.1	81
Assam	172.7	51.9	52.9	91
Bihar	162.7	52.8	38.5	91
Gujarat	205.1	57.6	61.3	86
Haryana	252.4	60.3	55.9	82
Karnataka	186.1	60.6	56.0	80
Kerala	234.3	68.4	89.8	21
Madhya Pradesh	171.8	51.6	44.2	117
Maharashtra	225.5	60.6	64.9	59
Orissa	161.9	53.0	49.1	121
Punjab	274.7	63.1	58.5	64
Rajasthan	229.2	53.5	38.6	96
Tamil Nadu	198.4	56.9	54.6	68
Uttar Pradesh	179.3	50.0	41.6	118
West Bengal	197.1	57.4	57.7	77

Co-efficient Correlation (r′ value) between PCE and Life Expectancy at birth is 0.69.

Co-efficient Correlation (r′ value) between PCE and IMR is 0.59.

Co-efficient Correlation (r′ value) between PCE and LL is 0.46.

TABLE—3

Percentage Distribution of Percapita Monthly Consumer Expenditure on Selected Items in Orissa during 1977-78 and 1988-89.

Items	Rural		Urban	
	1977-78	1988-89	1977-78	1988-89
Orissa				
Food	71.51	68.95	66.02	60.07
Non-food	28.59	31.05	33.98	39.93
India				
Food	68.38	63.85	62.61	57.14
Non-food	31.62	36.15	37.59	42.86

TABLE—4

Rise in Retail Prices of some Important Commodities in Orissa Between 1978 and 1988 (Price per Kg. in Rs.)

Commodities	1978	1988	% growth
Rice	1.62	3.56	119.7
Gram	2.72	7.01	157.7
K. Oil (Per litre)	1.42	2.61	83.8
Cloth (Per metre)	3.84	8.56	122.9

Economic Development Vs Level of Living in India : An Econometric Probing

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Introduction :

In plan documents of Government of India it is emphatically stated that the economic development must accrue more and more to the relatively less and less privileged class of the society in order to enable them to lead a better life. Thus, in every Five Year Plans there is constant strive for rapid economic development to generate more of national income. It is believed that higher percapita income is needed to increase the standard of living of the people through a rise in volume of consumption. But a country with a very high level of national income may have a low level of living. Similarly, there may be high level of consumption with low levels of income which could follow from excessive rise of prices and/or rise of population.

As per the report of the Planning Commission presented in the Parliament in 1990, the incidence of rural and urban poverty has come down to 32.7 and 19.4 percent respectively which is far below the estimates (i.e. 48.7 and 37.8 percent) made by Minhas et al[1] (1991) for the year 1987-88. According to them the low estimates are the consequences of the peculiar statistical artifacts used by the Commission. Radhakrishan and Sharma[2] (1976), Dutta[3] (1980) and Murty[4] (1985) have examined the temporal trend in the level of living in both rural and urban sectors of India. Although the findings of various studies provide evidence of declining trend of disparity in the nominal percapita consumption but lacks unanimity over the disparity trend of real percapita consumption. Recently Maity and Chattopadhyay[5] in their study held that the absolute level of living among different decile groups have remained more or less stagnant except some improvement in 80's. Dutta Roy Choudhury[6] (1992) while analysing interstate and intrastate variations in economic development and standard of living has used the measure of State Domestic Product (SDP) and household consumption expenditure both in current and constant prices. He arrives at the conclusion that the findings based on the above two variables must be linked with other independent indicators of socioeconomic development to draw specific conclusion regarding the standard of living. The present paper however, pursues only one objective to probe into the relationship subsisting between economic development (characterised by the growth of national income) and the level of Private final consumption expenditure and to ascertain whether the growth of national income can be relied upon as an indicator of better level of living at the aggregate level.

The lay out of the paper is as follows. Section II specifies the data and econometric models used in the paper. Section III presen[illegible] computerized estimated results. The Section IV concludes [illegible] findings of the study.

II

The Data and Specification of Model :

In order to show the average relationship between c[illegible] expenditure and the economic growth the basic data are obtained fr[illegible] publications of CSO, Government of India. Generally the consump[illegible] expenditure is considered to have a direct relationship with the level of living. Therefore, in this paper private final consumption expenditure (PFCE) has been taken as the variable representing the standard of living. The consumption expenditure is affected by a number of factors such as income, inflation rate, population trend and many others. Here an attempt has been made to examine the relationship subsisting between PFCE and Net National Product (NNP), Percapita Income (PNNP), price and population trend over the period 1960-61 to 1993-94.

The linkage between the variables characterising the private final consumption expenditure in domestic market and the national economic development are identified through the use of regression analysis based on OSL technique. The empirical estimations of the equation are obtained by using the annual data covering the period 1960-61 to 1993-94. The goodness of the fit of the regression equations is evaluated on the basis of the signs of the regression coefficients, coefficients of determination adjusted ($\bar{R}^2$), Durbin-Watson test and t-statistics.

The variables, notations and units of measurement used in this study are as follows.

Sl. No.	Variables	Symbols	Units
1.	Private Final Consumption Expenditure at Domestic market.	PFCED	Current prices in Rs. Crores
2.	Private Final Consumption Expenditure at Domestic market.	PFCE	Constant prices (1980-81)
3.	Net National Product at factor cost	NNPc	Current prices in Rs. Crores
4.	Net National Product at factor cost	NNP	Constant Prices (1980-81)
5.	Expenditure on Food	Fexc	Current prices in Rs. crores
[illegible]	[illegible]ture on Food	Fex	Constant prices (1980-81)
[illegible]	[illegible]rice Deflator	NNPc/NNP	Ratio
[illegible]	[illegible]r population	T	1960-61 = 1 1 , 2 , ...n years

The PFCED presents the level of living at aggregate level and expected to have positive relationship between national income and growth of population. Assuming that PFCE is constant, the functional form of the equation to measure the relationship with NNP and T as follows :

$$PFCE = a + b\ NNP \ldots\ldots\ldots\ldots \text{ Eqn (1)}$$

$$PFCE = a + b\ NNP + c\ T \ldots\ldots\ldots \text{Eqn (2)}$$

Elasticity of expenditure in response to the change in income and partial elasticities with respect to income and population growth are measured by the following equations.

$$\text{Log } PFCE = \text{Log } a + b \text{ Log } NNP \ldots\ldots\ldots \quad \text{Eqn (3)}$$

$$\text{Log } PFCE = \text{Log } a + b \text{ Log } NNP + cT \ldots\ldots\ldots \text{Eqn (4)}$$

The co-efficient b in eqn. 3 show the expenditure elasticity in response to the percentage increase in the real national income and the coefficients b & c in eqn. 4 reveal the partial elasticities of expenditure with respect to national income and population trend respectively.

As noted earlier, the volume of expenditure is inflated due to either rise of prices and/or rise of demand for consumption goods because of the growth of population. Thus it is essential to isolate the impact of price rise, growth of national income and population factor on the expentiture level in order to have a definite understanding pertaining to the relationship between economic development and level of expenditure, inter alia, the level of living. The functional form of the relationship among the variables is as follows.

Log (PFCED) = Log a + b Log NNP : c Log NNPc/NNP + d T......Eqn (5)

Further, in order to measure the extent of influence exerted by the rise in real percapita income, price change and population parameter on the expenditure ratio equations of the following type are specified.

Log (PFCE/NNP) = Log a + b Log PNNP + c T............Eqn (6)

Log (PFCED/NNPc) = Log a + b Log PNNP + c Log (NNPc, NNP) + d T............Eqn (7)

...igher percentage of expenditure on food items is considered to ...f low levels of living. Generally, it is believed that expendi- ...and the level of economic development are inversely related. ... the food expenditure declines with economic development. ...above hypothesis and to draw the conclusions regarding the ...end of level of living the following equations are fitted to

... = a + b PFCE..................Eqn (8)

... Fexc = Log a + b Log PFCE + c Log (NNPc/NNP)......Eqn. (9)

... acknowledge the limitation of the study pertaining to the data on PFCE in domestic markets. It suffers from the defect that it not only includes the expenditures of the resident households but also purchases of non-residents. However, our objective is very broad and general and theretore, it does not affect much the findings emerging out of the test to probe the relationship between economic development and the level of living over the period of reference.

III

Empirical Results :

The estimated results eqn-1 and eqn-2 are presented in table-1. It shows the pattern of change in the linear relationship between real PFCE, real national income and population parameter. The estimations reveal that the magnitude of the PFCE in relation to a unit increase of national income has been declining over the decades (eqn-1). On an average an absolute increase of real national income by Rs.1000/- has led to an increase of expenditure by Rs. 822/- during 1960-61 to 1993-94. When population parameter (T) is introduced in the model, PFCE declined to Rs. 697/- during the same period. Further, it is noticed that the PFCE at the domestic market has been increasing by Rs. 565.549 crores per year, due to rise of population assuming that there has been no change in national income during the entire period of thirty four years. The decadal analysis shows that PFCE has declined over the decades with the increase of NNP. The contribution by the population parameter is the highest (i. e. 3531.975) and it is the lowest (i. e. 297) by the national income during 1980-81-89-90 The coefficients of NNP are significant at one percent level. In case of T all coefficients except for the decade 1970-71-1979 are also significant at one percent level. High values of R^{-2} suggests that the variables used in the equations explain the variations in PFCE to the extent of 95 to 99%.

TABLE—1

Relationship between Expenditure and National Income

Period	Intercept	NNP	T	R^{-2}	DW
1960-61 1993-94	5626.282	.822 (71.69)*	—	.994	.41
1960-61 1969-70	331.376	.893 (13.431)*	—	.958	1.37
1970-71 1979-80	7315.457	.790 (15. 267)*	—	.967	.96 (Eqn-1)
1980-81 1989-90	13348.531	.789 (21.785)*	—	.983	.79
1960-61 1993-94	9480.913	.697 (18.965)*	565.55 (3.52)*	.995	.37
1960-61 1969-70	28392.419	.382 (4.057)*	1110.26 (5.73)*	.990	1.31
1970-71 1979-80	14048.512	.611 (4.088)*	636.06 (1.27)	.965	.61 (Eqn-2)
1980-81 1989-90	– 8572.026	.297 (5.599)*	3531.98 (9.45)*	.998	2.14

Figures in parenthesis show the t—Values
* Significant at 1 % level.

The observation made from table-1 is further substantiated by the coefficients of income elasticities of expenditure, presented in table-2 (eqn-3). The expenditure elasticity for the entire period of thirty four years is found to be .954 which may be interpreted to mean that one percent rise in NNP led to the increase of 95% of PFCE. The elasticity coefficient for the decade 1960-61—1969-70 is the highest (i. e. 1.003). It has declined to .910 in the decade 1980-81—1989-90. A similar trend is evidenced when proxy variable (T) for population growth is added to the equation-3.

TABLE—2

Expenditure Elasticities

Period	Intercept	NNP	T	R^{-2}	DW
1960-61 1993-94	.406	.954 (84.543)*	—	.996	.54
1960-61 1969-70	—.140	1.003 (13.704)*	—	.959	1.35
1970-71 1979-80	.985	.902 (15.223)*	—	.967	.96 (Eqn-3)
1980-81 1989-90	.947	.910 (24.724)*	—	.987	.83

Partial Elasticities

Period	Intercept	NNP	T	R^{-2}	DW
1960-61 1993-94	3.021	.713 (8.501)*	9.29 (2.89)**	.996	.35
1960-61 1969-70	6.406	.404 (3.776)*	.019 (5.87)*	.991	1.43
1970-71 1979-80	3.628	.658 (3.761)*	9.17 (1.47)*	.967	.63 (Eqn-4)
1980-81 1989-90	8.132	.228 (2.287)**	.034 (6.89)*	.998	2.29

Figures in parenthesis show t-Values

* Significant at 1% level

** Significant at 5% level.

TABLE—3

Partial Expenditure Elasticities

(w.r.t. Income, Price and Population Trend)

Period	Intercept	NNP	NNPc/NNP	T	R^{-2}	DW
1960-61 1993-94	4.317	.600 (7.94)*	1.006 (16.07)*	.010 (2.15)	1.00	1.25
1960-61 1969-70	2.734	.806 (4.32)*	1.441 (9.53)*	−.030 (−2.07)	.998	2.46
1970-71 1979-80	2.234	.797 (3.73)*	1.049 (8.24)*	−5.538 (−0.37)	.997	2.26 (Eqn-5)
1980-81 1989-90	6.124	.431 (2.71)**	1.022 (2.22)*	.018 (.533)	.998	2.59

Figures in parenthesis show t-Values

* Significant at 1% level

** Significant at 5% level.

Rise in income and population encompass, inter-alia, the effects of price rise to inflate the volume of expenditure. To assess the impact of inflation factor on the total values of expenditure, the implicit price deflator i.e. the ratio of real national income to the national income current prices (NNPc/NNP) is incorporated in to the model. The PFCED is taken in current prices. The estimated results of eqn -5 are displayed in table-3 which show the partial expenditure elasticity with respect to real national income, price change and proxy parameter (T). It is evidenced that the growth of PFCED is more explained by the inflation factor and less by the rise of real income with coefficients 0.006 and .600 respectively during the entire period of reference. Both coefficients are significant at 1% level of significance. The coefficient of (T) is found to be negligible and insignificant. The above findings also hold good over different decades. Thus it supports our theoretical frame work that it is not the economic development but the excessive rise of prices which has led to more expenditure over the years.

TABLE—4

Partial Elasticities of Expenditure Ratio

Period	Intercept	PNNP	T	R^2	DW
1960-61 1993-94	1.835	−.272 (−3.41)**	2.746 (2.049)	.451	.15
1960-61 1969-70	4.155	−.594 (−5.496)*	6.057 (4.823)*	.778	1.39
1970-71 1979-80	2.283	−.333 (−1.927)*	1.343 (.482)	.262	.63 (Eqn-6)
1980-81 1989-90	5.80	−.765 (−7.678)*	.018 (6.134)*	.905	2.36

Figures in parenthesis show the t-Values .

* Significant at 1% level

** Significant at 5% level.

Table-4 shows the partial elasticities of expenditure ratio in terms of income and population factor. The respective partial elasticity coefficient for real percapita income and T variable for the entire period from 1960-61 to 1993-94 are −.272 and 2.746. It implies that, population growth remaining constant, one percent rise in PNNP leads to a decline of the expenditure ratio by −.27 percent. On the other hand if the percapita income remains constant one percent rise in population trend tends to raise the ratio by 2.75 percent during the same period. But the coefficients of (T) variable is not significant. The comparison of partial elasticities across the decades reveal that the expenditure ratio has declined by −.76 percent due to one percent rise in real percapita income in the terminal decade of the study. Interestingly, the coefficients of partial elasticities of PNNP are found to be negative over all the decades and over the entire period of reference. Thus, we can deduce that the rise in percapita income has resulted in the declaration of the rate of growth of PFCE. Once again it corborates our earlier findings that the improvement in the level of living characterised by the increase of the level of expenditure is not due to the growth of national income and percapita income over the time but for rise in prices.

A persistent rise of prices of consumption goods has adversely affected the standard of living of the people which in turn has affected the income-expenditure ratio. When the ratio in current prices is regressed with real percapita income, inflation factor and proxy variable (T), the results are as follows (Table-5).

TABLE—5

Partial Elasticities (w.r.t. income, price and population trend)

Period	Intercept	PNNP	NNPc/NNp	T	R-²	DW
1960-61 1993-94	2.755	−.392 (−5.50)*	.020 (.32)	2.416 (.054)	.872	1.29
1960-61 1969-70	1.988	−.191 (−1.03)	.444 (2.95)**	−.035 (−2.90)**	.629	2.40
1970-71 1979-80	1.461	−.201 (−.96)	.048 (.38)	−5.105 (−,45)	.257	2.26 (Eqn-7)
1980-81 1989-90	6.124	−.569 (−3.58)**	.022 (.047)	.011 (.537)	.891	2.59

Figures in parenthesis show t-Values

* Significant at 1% level

** Significant at 5% level.

The table shows that the rise in price has positively contributed to the variation in the ratio. The coefficients except for 1960-61—1969-70, are not significant. Similarly coefficients of proxy variable is insignificantly positive (i.e. .018) for the decade 1981-90. Like the results of table-4, the partial elasticity coefficient of PNNP are found to be negative for the whole period under reference and across the decades. The coefficients for the entire period and for the decade 1981-90 is significant at 1 and 5% respectively.

TABLE—6

Estimated Relationship between Food Expenditure and PFCE

Period	Intercept	PFCE	R-²	DW
1960-61 1993-94	8376.342	.437 (100.34)*	.997	1.0375
1960-61 1961-70	5470.490	.480 (14.225)*	.962	1.5882
1970-71 1979-80	3779.712	.495 (15.234)*	.967	1.9164 (Eqn-8)
1980-81 1989-90	14234.229	.394 (31.962)*	.992	1.6636

Figures in parenthesis show t—Values

* Significant at 1% level

The trend of food expenditure can be viewed as an index of level of living. A declining trend indicates a rise in the level of living. Table-6 shows the trend of expenditure of food in relations to PFCE. During the period of 34 years the average expenditure on food has increased by 43 paise in response to Re. 1/- increase in PFCE annually. Across the decades it is the highest (i. e. .495) during 1970-71 to 1979-80. In the terminal decade of the study the coefficient has declined to .394. All the coefficients are significant at 1% level.

As assumed and proved in the earlier part of the study that the rise in income and the inflation factor play a determining role in the magnitude of the total expenditure. The above observation is assumed to hold good in case of growth of expenditure on food items. In order to find out the relative elasticities of food expenditure in terms of income and price factor, Eqn-9 has been fitted to the data and the estimated results are presented in table-7.

TABLE—7

Partial Elasticity of Food Expenditure

Period	Intercept	PNNP	NNPc/NNP	R	DW
1960-61 1993-94	10.545	.032 (.188)	1.381 (36.51)*	.998	1.55
1960-61 1969-70	4.384	.906 (2.341)	1.461 (24.77)*	.991	2.32
1970-71 1979-80	6.403	.600 (1.976)	1.118 (18.66)*	.985	1.89 (Eqn-9)
1980-81 1989-90	7.404	.470 (1.564)	1.234 (10.822)*	.997	2.22

Figures in parenthesis show t-Values

* Significant at 1% level.

It is evident that the coefficients of the partial elasticities of NNPc/NNP are significant at 1% level during the entire period of reference and over the decades. Partial elasticity coefficients of real percapita income are insignificantly positive. It is further noticed that the percentage change in the expenditure on food has been declining with one percent increase in real percapita income over the decades and over the thirty four years. No clear trend is evidenced in case of price deflator.

The declining trend of expenditure on food in response to the rise in PNNP gives some indication regarding the improvement in the level of living in general. But to understand the change in the level of living it is quite essential to go for a detailed disaggregated study which is beyond the scope of this paper.

IV

Concluding Observations :

In the foregoing econometric analysis an attempt has been made to examine the inter temporal nexus between economic development and the level of living for the period 1960-61 to 1993-94. NNP and PNNP at current and constant prices are taken to be the indicators of economic development and PFCE at current and constant prices is accepted as an indicator of level of living.

The main findings of the study are that PFCE has increased over time in relation to growth of national income. The rise of PFCE is more explained by the price factor. Further the rise of percapita income has resulted in the deceleration in the growth of expenditure. The increase in the income and expenditure ratio is attributable more to the excessive rise of prices and less to the rise of income.

The declining trend of expenditure on food gives some indications of improvements in the level of living at aggregate level. However, there is a need for the detailed disaggregated study to arrive at a specific conclusion on the issue of movements in the absolute as well as relative levels of living.

To conclude it can be reiterated with affirmation that economic development characterised by the growth of national income and percapita income may not be relied upon as an index of the improvement in the levels of living of poeple in India.

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Measurement of Standard of Living

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Increase in real national or State income or per capita income has been treated as a parameter of economic growth. Growth rate is widely used to measure the performance of socio-economic variables over short or long term period and for meaningful spatial and temporal comparisons. The growth rates of agricultural production, industrial production, capital formation, final consumption, savings, NNP, NSDP etc. are most commonly used for assessing the performance of an economy. State Domestic Product is the single most important indicator available for measuring the overall performance of the State economy. Short term growth rates of NNP or NSDP are computed by the compound growth rate. For the purpose of forecasting the future trend of the economy and projecting the NSDP for future years the long term growth rate of NSDP at constant prices is used. The growth rates over long period are computed by fitting a trendline to logarithm of NSDP at constant prices. The growth rates observed in the State at different points of time can be visualised by computation of least square method of time series.

Growth rate of NNP and per capita NNP at constant prices are used as indicator of standard of living at the national level. Analogously the growth rate of NSDP and per capita NSDP at constant prices are used as reflector of standard of living of the people at State level.

NNP, per capita NNP, NSDP and per capita NSDP at constant 1980-81 prices are presented in the following table.

TABLE—1

NNP, per capita NNP, NSDP & per capita NSDP at constant 1980-81 prices.

Year	NNP (Rs. Cr.)	NSDP Rs. Cr.)	Per capita NI (Rs.)	Per capita NSDP (Rs.)	Difference (Rs.)
1	2	3	4	5	6
1980-81	110685	3225	1630.1	1230.5	399.5
1990-91	184460	4345	2199.0	1383.3	815.7
1993-94	202670	5241	2282.0	1578.0	704.0

Source : Economic Survey, Govt. of Orissa, 1992-93, 1993-94, 1994-95.

The above table reveals that growth of State Income has been incommensurate to that of NI. Analogously the growth of per capita SI has been less than paripassu with that of per capita income at the national level. The discrepancy between national and State per capita income has been accentuated from Rs. 399.5 in 1980-81 to Rs. 815.7 in 1990-91 but marginally declined to Rs. 704 in 93-94 which symbolises that economic development of Orissa has been trailing behind to the national level scenario.

The pattern of consumer expenditure indicates the standard of living of the people. Monthly per capita consumer expenditure (MPCE) and Engel's ratio are important indices used in the computation of percentage of people living below the poverty line. Based on NSS data monthly per capita consumer expenditure and using price deflator developed by CSO, planning Commission have worked out State wise percentage of population living below the poverty line.

The average monthly per capita consumer's expenditure for rural and urban area in Orissa and All India are presented in the following table.

TABLE—2

Monthly per capita consumer expenditure (MPCE) in Orissa and India.

In Rs.

NNS Round	Reference Period.	Orissa Rural	Orissa Urban	India Rural	India Urban
32nd	July 77-June 78	52.47	86.99	68.89	96.15
38th	Jan. 83-Dec. 83	98.75	151.41	112.44	164.03
42nd	July 86-June 87	114.19	216.94	140.93	222.65
43rd	July 87-June 88	127.51	225.20	158.10	249.93
44th	July 88-June 89	147.34	256.36	175.10	266.85
45th	July 89-June 90	154.12	227.35	189.46	298.00
46th	July 90-June 91	181.91	325.13	202.12	326.75
47th	July 91-Dec. 91	214.42	331.21	243.50	370.34
48th	Jan. 92-Dec. 92	223.89	464.95	247.21	398.95

Source : - NSS Report No. 311, 319, 355, 370, 381, 386, 388 & 397.

The above table reveals that in Orissa for rural areas MPCE has increased from Rs. 52.47 in 1977-78 to Rs. 223.89 in 1992-93. In case of urban areas MPCE has increased from Rs. 86.99 to Rs. 464.95 for the corresponding time period. In case of all India for rural areas MPCE has increased from Rs. 68.89 to Rs. 247.21 whereas in urban areas MPCE has increased from Rs. 96.15 to Rs. 398.95. Consumer expenditure of the people of rural Orissa has been incommensurate compared to rural area consumer expenditure of all India. This signifies that the standard of living of people of rural Orissa is worse off compared to rural average of all India.

Engel's ratio exhibits the percentage of consumer expenditure incurred on food items to total expenditure. Greater the magnitude of Engel's ratio, lesser the pace of economic development and vice-versa. Engel's ratio serves as an indicator of standard of living. Smaller the ratio, better the standard of living maintained by the people.

TABLE—3

Statewise Engel's ratio during 47th & 48th Round.

States	47th Round		48th Round	
	Rural	Urban	Rural	Urban
Andhra Pradesh	60.34	57.51	64.69	55.19
Assam	71.98	57.33	71.48	60.40
Bihar	77.06	63.59	75.49	67.52
Gujarat	69.55	59 50	69.32	58.56
Haryana	58.82	55.72	62.85	59.69
Karnataka	66.27	57.35	66.88	57.03
Kerala	58.43	49.27	60.30	56.39
Madhya Pradesh	66.52	57.66	61.67	59.71
Maharashtra	50.50	53.01	62.95	55.44
Orissa	69.82	61.76	66.60	53.16
Punjab	59.18	56.99	57.28	52.77
Rajasthan	64.70	52.93	64.31	60.02
Tamil Nadu	63.60	53.01	63.83	48.92
Uttar Pradesh	57.90	59.58	62.01	57.83
West Bengal	69.60	57.05	67.60	53.77
All-India	63.08	56.10	64.96	56.04

Source : NSS Report No. 388 and 397.

The above table reveals that Maharashtra ranks No. 1 and Bihar ranks 15 in terms of standard of living in rural areas as per 47th round of NSS. The position of Orissa is worse off compared to developed states and all-India average as per 47th round of NSS. In terms of 48th round of NSS in rural area Punjab ranks No. 1 and Bihar ranks 15 with reference to the standard of living. The standard of living of the people of rural Orissa is worse off compared to the all-India average. In urban area of Orissa, the standard of living is better than that of rural area.

Poverty ratio : Contradictory view :

Following the structural adjustment programme since 1991 contradictory views on poverty ratio have been elicited by NSS and NCAER. Latest consumer survey for 1993-94 by NCAER reveals that the proportion of low income household has diminished after the economic reforms of 1991, a continuation of the declining trend since 1985-86 when it conducted its first survey. Social mobility is substantial and people are moving up the income ladder from the bottom to the middle and from the middle to the top. The following table exhibits contradictory views on poverty ratio.

TABLE—4

	NSS Poverty Ratio (%)			NCAER Low income group (%)			
Year	Rural	Urban	Total	Year	Rural	Urban	Total
1983	49.0	38.3	46.5	1985-86	73	42	65
1987-88	39.1	40.1	39.3	1987-88	69	40	61
1989-90	33.7	36.0	34.3	1989-90	67	37	59
1990-91	35-0	37.0	35.5	1992-93	65	38	58
1992	41.7	37.8	80.7	1993-94	65	37	57

Source : Economic Times, 14th Dec. 95.

The above table indicates a comparison of poverty trend as measured by NSS using the Lakdawala expert group methodology and by the NCAER. NSS data relate to consumption expenditure while NCAER data refer to income. NCAER has defined low income household as those with an annual income below Rs. 12,500 at 1989-90 prices. NSS data reveal a steep fall in poverty in two years preceding the economic reforms but followed by a steeprise subsequently in the first 18 months of economic reforms. By contrast NCAER study reveals that poverty has diminished gradually without oscillation both before and after 1991.

NSS data reveal that poverty ratio declined by 7.2% in 1987-88 and further by 5% in 1989-90. That means 45 million people were raised above the poverty line in one single year. In 1990-91 poverty ratio increased by 1.2% and further by 5.2% in 1992. This implies that economic reforms have adverse effect on poverty ratio. By contrast NCAER data reveal a steady decline in the Percentage of low income group from 65% to 57% in 1993-94.

NCAER divides households into three categories : low income, lower middle income and middle high income. Social mobility is indicated in table-5

TABLE—5

Up the Income ladder (% of Household)

Year	Low Income		Lower Middle Income		Middle/High Income	
	Overall	Rural	Overall	Rural	Overall	Rural
1985-86	65	73	25	22	10	05
1987-88	61	69	28	25	11	05
1989-90	59	67	27	24	14	09
1992-93	58	65	25	23	17	12
1993-94	57	65	26	23	17	12

Source : ET, 14th Dec, 95.

Low income is defined as upto Rs. 12,500 per year per household. Lower middle income is Rs. 12, 500 to Rs. 25,000 per year. Middle/high income is above Rs. 25,C00 per year. All these are fixed at 1989-90 prices.

Between 1985-86 and 1993-94, the proportion of low income households declined by 8%. In the same period the proportion of middle/ high income group increased by 7%. In the rural area the percentage of low income households declined by 12%. In the rural area the percentage of middle/high income households increased by 7%. Thus NCAER study reveals upward social mobility. The trend of poverty ratio has been diminutive though it has decelerated in the initial reform years.

The Human Development Report uses the concept of human development index to measure the level of socio-economic development in various countries. P. V. Rajeev has made an attempt to study the pattern of socio-economic development in 15 major States of India. The study takes into consideration data relating to the following seven variables.

(a) Per Capita NSDP
(b) Unemployment rate
(c) Poverty ratio
(d) Per Capita education expenditure
(e) Literacy rate
(f) Infant mortality rate
(g) Annual population growth rate.

The overall ranking of each state has been calculated by taking a simple average of the ranking of the state with respect to the seven indices used.

Table-6 gives a glimpse on the socio-economic indicators of 15 major States.

TABLE—6

Socio-economic Development Indicators

States	Per Capita NSDP (Rs.) (Currentprice) 1990-91	Unemp-loyment rate (%) 87-88	Poverty ratio (%) 87-88	Per Capita Edn Exp. (Rs.) 91-92	Literacy rate (%) 91	Infant Morta-lity rate per '000 91	Annual popula-tion growth rate (%) 81-91	Over-all ranking
1	2	3	4	5	6	7	8	9
A. P.	4728	3.90	31.7	179.1	44.1	73	2.2	10
Assam	4014	5.62	22.8	250.1	52.9	81	2.2	09
Bihar	2655	2.84	40.8	149.7	38.5	69	2.1	13
Gujarat	5687	2.57	18.4	256.0	61.3	69	1.9	02
Haryana	7802	5.86	11.6	236.9	55.9	68	2.5	07
Karnataka	4696	2.44	32.1	218.8	56.0	77	1.9	06
Kerala	4207	17.07	17.0	282.3	89.8	17	1.3	03
M. P.	4149	1.51	36.7	160.5	44.2	122	2.2	12
Maharashtra	7316	2.86	29.2	270.5	64.9	60	2.3	04
Orissa	3077	4.66	44.7	183.6	49.1	126	1.8	14
Punjab	8373	4.04	7.2	328.9	58.5	53	1.9	01
Rajasthan	4113	2.68	24.4	213.6	38.6	77	2.5	11
Tamil Nadu	5047	5.25	32.8	241.5	54.6	57	1.4	05
U. P.	3516	1.83	35.1	149.6	41.6	93	2.3	18
W. B.	4753	6.06	27.6	203.4	57.7	70	2.2	08

Source :—ET, 10th Nov.'95

Table-6 reveals that in terms of HD index Punjab, Gujarat, Kerala, Maharashtra and Tamil Nadu rank the first, second, third, fourth and fifth position respectively. In terms of poverty ratio the position of Orissa is 15. In terms of IMR the rank of Orissa is at the bottom. But in terms of annual growth rate of population the rank of Orissa is 3 which is a better symptom. In terms of per capita NSDP the rank of Orissa is 14 which coincides with overall ranking. From the socio-economic development indicators it is evident that the standard of living maintained by the people of Orissa is the worst out of 15 States as highest percentage of poverty population remains in Orissa.

Standard of living of the people of Orissa will improve if the percentage share of industrial sector to the State income will increase significantly. Inadvertently rapid industrialisation can lead to improvement in the standard of living.

Besides gainful wage employment opportunity should be percolated to the vulnerable sections of the society through proper implementation of poverty amelioration programmes such as IRDP, JRY, IYS and afforestation programmes.

Promotion of small scale and cottage industries will be conducive to the elevation of standard of living of the people of Orissa.

Willingness to develop on the part of economically active population will improve productivity and standard of living of the people.

Inter-District Variation in Standard of Living in Orissa

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Indroduction :

The term 'standard of living' is very difficult to define in a precise form. It has become one of the first considerations of the Government. Maintaining and improving the standard of living has become one of the central expectations of those who are governed. According to Amartya Sen, the values of the living standard lies in the living. He further points, "You could be well off, without being well. You could be well, without being able to lead the life you wanted. You could have got the life you wanted, without being happy. You could be happy, without having much freedom. You could have a good deal of freedom, without achieving much. We can go on." All this implies that standard of living includes both pleasure and opulence of the individuals. It is very difficult to measure the pleasure of the individuals empirically. But opulence in terms of certain socio-economic indicators may be taken as the measure of the standard of living of the people.

In this paper an attempt has been made to study inter-district variations in the standard of living of the people of Orissa. In order to study inter-district variation in the standard of living, the recently developed Taxonomic Method has been used. Inter-district variation in the standard of living in this paper is studied with reference to the thirteen old districts of the State.

Objectives :

The objectives of this paper are as follows :

1. To measure the inter-district variations in the standard of living.
2. To identify the higher, average and lower standard of living of different districts separately; and

hodology :

In order to examine the inter-district variations, various methods
s simple ranking method, the indices method, the principal component
rsis, etc. are used. The ranking & indices method are too simple. The
ipal component analysis assumes that the variables/indicators
nearly related. In case of non-linear relationship between/among the
bles/indicators, it will be inappropriate to use principal component
rsis. So in order to avoid this difficulty, in this paper, an alternative
oach, i. e. the Taxonomic Method is used. This method helps to
truct such an index which would be able to rank different districts/
ns without assuming any statistical distribution. The steps involved
e computation of composite index of the standard of living are as
ws :.

At first, selection of indicators which promote or retard the
dard of living is very much necessary. Here, 12 indicators which help
crease the standard of living of the people for each of the 13 districts
rissa have been indentified and their values are shown in the Table-1.

Secondly, since the Taxonomic Method, like many others, aims
onstructing a unitary index of development, it is necessary to add, at
ppropriate stage, the values of all the selected indicators of each
ict. But the original values of different indicators are likely to be
ifferent units, in which case they cannot be added. It is, therefore,
essary to convert the original values of the selected indicators into
dardised values, so that, addition can be possible. Conversion of the
inal values into standardised values is done by a simple formula as
n below :

$$Z_{ij} = \frac{X_{ij} - \overline{X}_j}{S_j}$$

where $i = 1, 2, 3, \ldots\ldots\ldots\ldots n$ districts

$j = 1, 2, 3, \ldots\ldots\ldots\ldots k$ indicators.

and $\overline{X}_j$ and S_j are the mean and standard deviation of each
icator.

Thirdly, from the standardised values, an ideal district for each
icator is identified by taking the highest value of the indicator of
ndard of living. From the highest standardised value, deviations of the

$$P_{io} = \sqrt{\sum_{P=1}^{k} (Z_{ip} - Z_{op})^2}$$

Where P_{io} = pattern of standard of living of the district.

Z_{ip} = the standardised value for the i- th district and k-th indicator

Z_{op} = the highest standardised value for the k-th indicator.

The next step is to compute the composite index of standard of living of each of the district. It is found through the following formula.

$$D_i = \frac{P_{io}}{P_o}$$

Where $P_o = \overline{P} + 2\,\sigma P_{io}$

and $\overline{P}$ and σP_{io} are the mean and standard deviation of the pattern of standard of living.

Under this method, the value of composite index is always non-negative. It lies between 0 and 1. It may exceed 1 but the chances of exceeding 1 are nearly zero. The closer the value of the composite index to zero, the higher is the level of standard of living of the district and the closer to 1, the lower is the level of standard of living of the district.

Lastly, in order to identify higher, average and lower standard of living districts, the following method is used.

Districts having composite indices above $\overline{D} + 0.5\,\sigma D_i$ are lower standard of living districts. Districts having composite indices below $\overline{D} - 0.5\sigma D_i$ are higher standard of living districts. And districts having composite indices in between $\overline{D} + 0.5\,\sigma D_i$ and $\overline{D} - 0.5\,\sigma D_i$ are known as average standard of living districts. Here $\overline{D}$ and σD_i are the mean and standard deviation of the composite index.

Analysis :

In the present analysis, twelve indicators of the standard of living for each of the thirteen districts of Orissa have been identified in order to measure the standard of living of the people of each district by using the Taxonomic Method.

The twelve indicators are as follows :

1. Percentage of non-(SC+ST) population to total population.
2. Literacy rate.
3. Percentage of non-agricultural labourers to total workers.
4. Per capita gross production of foodgrains (in qtl).

5. Per capita availability of fish (Kg/year)
6. Survival rate of infants.
7. Percentage of industrial workers to total workers.
8. Percentage of non-household industrial workers to total industrial workers.
9. Kilometre of surface road length per 1000 sq. km.
10. Number of motor vehicles registered per 1000 population.
11. Percentage of villages electrified and
12. Percentage of rural families above poverty line. The district-wise values of the indicators mentioned above have been shown in Table-1. On the basis of the values of the twelve selected indicators, a composite index of the standard of living of each district of Orissa has been worked out and presented in Table-2.

It can be seen from Table-2 that the standard of living of the people of Puri district is highest; whereas, it is lowest in case of Phulbani district. Again, it can be easily identified (as per the formula mentioned in methodology) from the Table that Puri, Cuttack, Sundergarh and Sambalpur are higher standard of living districts and Keonjhar, Mayurbhanj, Kalahandi, Koraput and Phulbani are lower standard of living districts. The average standard of living districts are Balasore, Bolangir, Dhenkanal and Ganjam.

The main reasons for the backwardness in the standard of living of the people in the lower and average standard of living districts can be inferred from Table-1. The values of almost all the selected indicators are lower in the lower and average standard of living districts as compared to the respective values of higher standard districts. There are also certain exceptions. For example, the survival rate of infants in Mayurbhanj district was highest, i.e. 896. Similarly, next to Puri district, the kilometre of surface road length in Mayurbhanj was highest i.e.1639.80 kilometre.

Suggestions and Conclusion :

In the light of the above statement following measures may be adopted to reduce inter-district disparities in the standard of living.

First, educational facilities should be improved in the backward districts so that literacy rate and the levels of education can be increased. Secondly, in order to increase foodgrain production, improved methods of cultivation should be used. For this, government should provide adequate irrigation facility, subsidised HYV seeds, fertilizers, modern agricultural implements, bank loans, etc. Thirdly, for the increase in fish production, bank loans at subsidised rate and adequate training to the people are necessary. Fourthly, to remove the disguised unemployment from the agricultural sector and to increase employment opportunity, establishment of more industries in the backward districts, is necessary. For this, more efforts should be made to establish non-household industries. Because it is seen that the earnings of the workers working in non-household industries are more than that of the workers working in household industries. Fifthly, the government should provide adequate health facilities to increase the survival rate of infants and health efficiency of the people. Finally, for the better utilisation of all these facilities, electrification of villages and construction of sufficient all weather surface roads in the lower standard of living districts are very much necessary. In order to have all these facilities for the betterment of the standard of living of the people in the backward districts, an integrated approach is a must.

TABLE—1

District-wise values of different indicators of Standard of Living of Orissa

Sl. No.	Name of the District	INDICATOR					
1	2	3	4	5	6	7	8
1.	Balasore	73.13	58.78	77.29	2.48	15.88	846
2.	Bolangir	64.18	39.74	73.28	3.22	7.60	875
3.	Cuttack	76.35	63.28	77.65	2.04	11.90	852
4.	Dhenkanal	71.39	53.22	73.10	2.40	5.95	847
5.	Ganjam	74.01	44.26	70.99	2.71	5.68	851
6.	Kalahandi	53.18	30.05	68.53	3.13	2.58	865
7.	Keonjhar	43.99	44.73	79.22	2.43	1.92	859
8.	Koraput	30.68	22.66	73.24	2.94	1.27	872
9.	Mayurbhanj	35.14	37.88	74.10	2.64	4.45	896
10.	Phulbani	43.93	38.64	72.37	2.26	3.16	843
11.	Puri	81.00	63.82	78.35	2.28	10.18	854
12.	Sambalpur	55.07	49.38	73.47	3.80	6.26	891
13.	Sundergarh	40.48	52.97	85.33	1.73	3.01	890
	ORISSA	61.59	49.09	74.95	2.59	7.34	865

Note : 3 = Percentage of non-(SC+ST) population to total population, 1991 Census.

4 = Literacy rate, 1991 Census.

5 = Percentage of non-agricultural labourers to total workers, 1991 Census.

6 = Per capita gross production of foodgrains (in qtl.), 1993-94.

7 = Per capita availability of fish (kg./Year), 1993-94.

8 = Survival rate of infants, 1981.

Sl. No.	Name of the District	INDICATOR					
1	2	9	10	11	12	13	14
1.	Balasore	3.88	60.64	1028.37	4.92	81.30	32.63
2.	Bolangir	5.25	33.22	1329.40	6.53	78.25	15.46
3.	Cuttack	7.45	62.48	1564.38	14.46	88.28	29.19
4.	Dhenkanal	6.65	47.13	1485.65	7.58	78.95	15.75
5.	Ganjam	4.90	51.58	1346.12	9.39	64.20	22.16
6.	Kalahandi	3.38	33.27	1493.48	4.70	59.75	13.35
7.	Keonjhar	4.36	54.84	632.97	9.40	81.00	17.05
8.	Koraput	2.78	58.16	925.45	5.96	46.08	12.80
9.	Mayurbhanj	5.58	23.36	1639.80	7.15	62.80	9.23
10.	Phulbani	3.29	23.54	1149.94	3.68	41.90	10.01
11.	Puri	6.65	58.94	2293.87	18.51	83.90	22.36
12.	Sambalpur	8.48	41.86	1448.60	11.61	71.70	32.63
13.	Sundergarh	12.35	84.93	2254.20	44.71	83.80	19.07
	ORISSA	5.80	52.90	1331.29	11.74	69.70	21.30

9 = Percentage of industrial workers to total workers, 1991 Census.

10 = Percentage of non-household industrial workers to total industrial workers.

11 = Kilometre of surface road length per 1000 Sq. km. by 31. 03. 93.

12 = Number of motor vehicles registered per 1000 population.

13 = Percentage of villages electrified, 1993-94.

14 = Percentage of rural families above poverty line, 1992 survey by P. R, Department, Government of Orissa.

Source : 3, 4, 5, 9, 10 = Census of India, 1991.

6, 7, 11, 13 = Economic Survey of Orissa, 1994-95.

8 = Indirect Estimates of Fertility and Mortality at the District Level, 1981, Occasional paper no. 4 of 1994, Office of the Registrar General, India.

10 = Statistical Abstract of Orissa, 1991.

14 = P.R. Department, Government of Orissa.

TABLE—2

Pattern and Index of Standard of Living in Different Districts of Orissa

Sl. No.	Name of the District	Pattern of Standard of Living	Index of Standard of Living	Rank
1.	Puri (11)	5.3369	0.4767	1
2.	Cuttack (3)	6.3042	0.5631	2
3.	Sundergarh (13)	6.5269	0.5829	3
4.	Sambalpur (12)	6.5281	0.5830	4
5.	Balasore (1)	7.5784	0.6769	5
6.	Bolangir (2)	7.9135	0.7068	6
7.	Dhenkanal (4)	7.9186	0.7072	7
8.	Ganjam (5)	8.1462	0.7276	8
9.	Keonjhar (7)	8.9410	0.7986	9
10.	Mayurbhanj (9)	9.0022	0.8040	10
11.	Kalahandi (6)	9.6674	0.8634	11
12.	Koraput (8)	10.2573	0.9161	12
13.	Phulbani (10)	10.7558	0.9606	13

Note :—Number in the parentheses indicate the serial number of the districts as given in Table—1.

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The Concept of Living Standard : And an Overview of India's Position

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Its Meaning :

Living standard or standard of living is a concept which has relevance in the context of the study of economic development. According to many people, economic development "should also denote a rising standard of living".[1] Here development is related to removal of poverty (poverty means, here, a miserable living standard which is devoid of basic minimum human needs) and the test of development lies in the increase in the real per capita income over long period of time. Increasing real percapita income shows increasing capability to expand consumption basket through the spending of income after more buying of existing or usual consumer goods and also including in the consumption basket varying types of consumption goods.[2] After stating the above view, Meier and Baldwin hold that if the per capita income is to rise over a long period and thereby creates conditions for rise in the living standard, the real national income should rise at a greater rate than population growth rate per annum. More elaborately, they say, "when the growth of real national income is compared with population growth and an increase in real per capita income is found, it is tempting to say that this constitutes progress away from poverty towards a better standard of living." To them, economic development means economic progress and increase in economic welfare and here alone economic development becomes a "desirable objective" and the definition of economic development becomes a "persuasive definition".

While talking of standard of living the importance of income is taken into account. Samuelson writes, "Everyone realises the importance of income......... Furthermore, unless a family has a steady stream of money......... that family is ill. Not only its materialistic activities but its non-material activities, the things that convert existence into living must suffer : education, travel, recreation and charity; to say nothing of food, warmth and shelter".[3] This means that according to him standard of living consists of factors which provide positive conditions of living or generate the feeling of meaningfulness of living rather than a feeling of mere existence. Or standard of living takes an individual human being from a condition of mere existence to a condition of meaningful (which may be somewhat joyful) living.

While talking about standard of living, Mr. Bhagawati holds that it is erroneous to identify standard of living with national income level (and through assumption on population level with per capita real income level). He observes, "the income which accrues measures the resources available for use to the community. The standard of living, on the other hand, falls short of income in so far as it refers only to that part of it which is allocated to current consumption; it also refers to certain extra-dimensions such as the expectancy of life, the availability of doctors per capita, conditions of employment and the similar indicators of the way in which human existence is conditioned and enriched".[4] Taking this view into account we can extend Samuelson's view of living standard to be consisting of those factors (or productive resources), both material and non-material—the availability or enjoyment of which promise to raise not only income per person but also consumption per person. Because, increase in percapita income only may mean less per capita consumption in as much as people may increase their rate of saving or the state through defence expenditures may have caused rise in per capita income level but such expenditures do not create more consumable commodities and services for enrichment of life. .So, because of defectiveness in relating national and/or per capita income with living standard, modern writers equate achievement of economic development with the degree by which basic minimum human needs and employment grow and the extent to which these basic needs are provided to the common men or mass. Now, therefore, standard of living is related with economic development as long as economic development is concerned with fulfilling basic needs of common people in terms of health, education, water, food, clothing, housing, employment etc. or, in brief, it is concerned' with removal of poverty.

Its Coverage :

Living standard, thus, takes various factors both material and non-material which provide some amount of enrichment and meaningfulness of living and not simply the numbers and varieties of goods and services included in an average person's (which means per person or per capita) consumption basket. Meier and Baldwin have taken some economic aspects in depicting the standard of living of different nations and for its comparison among them. These are—per capita income, expectation of life at birth, number of physicians per 1000 of population, literacy percentage, per capita energy consumed per day, transport facilities (this is needed for greater mobility and supply of goods both raw-materials and final consumption goods at proper time), daily per capita food availability (taking all foods in terms of calories, animal proteins and fats in grammes) and per capita annual consumption of textiles (cotton, woollen and synthetic).[5]

A Relevant Digression :

Let me digress a little and discuss matters relevant to the discussion of standard of living. Does defence expenditure contribute to increase in standard of living ? Definitely not directly but it simply makes its enjoyment possible. However, it is not wholly irrelevant to the notion of living standard. Such expenditure preserves the society against internal disorder and foreign attack. It arouses a sense of safety and security in the minds of those who undertake productive work leading to more total output and through a policy of distributive justice leads to higher per capita output/income resulting in improvement of living standard of the common people. This role of defence expenditure in attaining higher living standard is analogous to attainment of MSA (Maximum Social Advantage) on the basis of application of one of the Daltonian objective tests of MSA. This view has also been upheld by Mr. Bhagawati. He goes further to say that in developed countries where productive capacity is high, such expenditures maintain the level of effective demand which helps in maintaining high level of employment, income and consumption and securing continuous higher living standard in the absence of which there would be depression and consequent scaling down of the living standard of the common people.[6]

Secondly, the living standards of countries cannot be compared for the simple reason that there is difference in the quality of goods and services included for determining the height (or superiority) of living standard. The quality of medical services and facilities which are determinants of living standard vary greatly between the developed and underdeveloped countries.[7]

Broad Features Summarised :

The above discussion of the Living standard leads to the following propositions about it :—

(1) Standard of living is not absolute or fixed. It changes in the upward direction depending on productive use of resources resulting in production of new consumption goods and goods of better quality.

(2) Standard of living is relative as it differs from family to family and country to country.

(3) Standard of living is understood in the sense of average standard of living of the people in a year. It is known from the height of per capita consumption "expenditure per year" through "macro approach" i. e. dividing the aggregate private consumption expenditure (on items notable for depicting living standard) by the total population of a year.

(4) Living standard has both material and non-material dimensions.

(5) For increase in the living standard, national income and per capita income should rise and these incomes should be adjusted for price changes between two points of time. The rate of growth of national income should be significantly more than population growth rate and there should be pursuit of a rational policy of distributive justice so that the increase in national income, instead of being cornered, is distributed fairly among the vast mass of the common people; and

(6) International comparison of living standard involves intricacies and the results of such comparisons are mere approximations and never exact.

An Overview of Indian PoSition :

Let us now see what has happened to the standard of living in India during 1960-61 and 1980-81. This can be known by dissecting total national income (or national expenditure)* into expenditure after consumption by households, Government consumption and public and private investments. This has been shown in the following table.[3]

	Rs. in crores		Percentage Share	
	1960-61	1980-81	1960-61	1980-81
(a) Consumption by households	11968	101673	77.4	67.1
(b) Consumption by Government	1086	15292	7.0	10.1
(c) Investment (Public & Private)	2583	36680	16.7	24.1

The table shows diversion of financial resources from people's or private consumption to other directions for which percentage share

* (as NI and NE are indentities)

of private consumption in total income has gone down from 77.4% in 1960-61 to 67.1 % in 1980-81. This shows that from all the factors that determine living standard if we take only expenditure after consumer goods by the people of India, their living standard during the above twenty years has undergone a decline.

It may, however, be noted that greater emphasis for effective implementation of the IRDP in 1980s and introduction of social security measures in mid 90s (like child welfare programme, Kutira Jyoti programme, old age pension programme, employment assurance scheme, construction of more houses for the rural poor under Indira Abas Yojana and life insurance cover extended to rural poor households through fixation of a very low amount of premium) would have gone a long way in increasing private consumption leading to a somewhat reasonable increase in the living standard of the average common people of India in recent years.

Let me conclude the discussion on the standard of living by presenting the latest available standard of living picture of India. This has been shown in the form of pattern of private final consumption expenditure in different selected directions of consumption of an average Indian in 1980-81.[9]

Pattern of Private Final Consumption Expenditure 1980-81

Sl. No.	Item	Aggregate Expenditure in Rs. corore	Per capita expenditure per annum in Rs.	Percentage of total consumption expenditure.
1.	Food, beverages and tobacco	54537	802	60.7
2.	Clothing and footwear	9008	133	10.0
3.	Rent, taxes, fuel and power	6007	89	6.7
4.	Utensils, furniture, domestic services etc.	3574	53	4.0
5.	Medical care and health exp.	1717	25	1.9
6.	Personal transport and other services	7517	111	8.4
7.	Education, Recreation etc.	3555	52	4.0
8.	Miscellaneous	3847	57	4.3
	Total (1 to 8)	89582	1321	100

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Standard of Living of the Mine Workers : A Study of Miners of Keonjhar District of Orissa

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Introduction :

Improvement of standard of living has remained as a primary objective of planning for development. Sustainable development implies satisfaction of physical, psychological and cultural needs in addition to economic needs of the people. The term 'standard of living' refers to the actual living conditions. The ILO observed that those goods and services which a particular class of society is accustomed to use determine its standard of living. The ILO and UNO enlisted general levels of consumption food and nutrition, housing, education, health, recreational measures, conditions of work and employment and social security measures as the components of international standard of measuring living standard. A low standard of living is characterised by chronic under-nourishment, under-nutrition, overcrowding and inadequacy of something which do not allow a person to have average strength, health and competence for himself and his family and is insufficient to meet the major emergencies of illness, accidents etc.

The Fifteenth Indian Labour Conference had recommended that minimum wages be need-based. It suggested computation of minimum wages on the basis of minimum requirements relating to intake of calories, clothing, housing, fuel and other miscellaneous items. The Committee on Fair wage 1949 developed three concepts in relation to the level of wages, namely—'Living Wage', 'Fair Wage' and 'Minimum Wage'. A Living Wage enables a worker to provide himself and his family not merely the bare essentials of food, clothing and shelter but a measure of frugal comfort including education for the children, protection against ill health, requirements of essential social need and measure of insurance against the most important misfortunes including old age. It is the sum sufficient to maintain an employee of average health, strength and competence and his wife and family of three children in a fair and average standard of comfort. It will lead to well being, decency and efficiency. It is the normal needs of a human being in a civilised community. Living wage is worked out with reference to the nutritional and other requirements of a worker's family.

A minimum wage must provide not merely the bare subsistence of life but also provide for the preservation of efficiency of the worker. It must also provide for some measure of education, medical treatment and other amenities.

The aim of the Minimum Wages Act 1948 is to provide minimum wage in sweated establishments where chances of exploitation of poor and unorganised workers are frequent. In estimating the workers' needs for fixing the minimum wage, the general approach is that the minimum wage fixed should be 'Living wage'. The Sukhamaya Chakravarty Committee set up by the Planning Commission in India on Wage Policy reported in 1973 that the need-based minimum wage is a relative concept. Beyond the level of bare subsistence it must be related to the level of development of the economy. A "Fair Wage" is one that is above the minimum wage and below the living wage. The lower limit of the fair wage must obviously be the minimum wage.

The Minimum Needs Programme (MNP) was given a formal shape in the Fifth Five year plan. The approach paper to the Fifth Plan (1974-79) stated that the alleviation of poverty required a multi-pronged attack and suggested a separate National programme of minimum needs. It observed "Even with expanded employment opportunities the poor will not be able to buy for themselves all the essential goods and services which should figure in any reasonable concept of a minimum standard of living. The measures for providing larger employment and incomes to the poorer section will therefore have to be supplemented up to at least minimum standard by social consumption and investment in the form of education, health, nutrition, drinking water, housing, communication and electricity. The programme accorded priority on social consumption needs and laid down the minimum norm to attain the same particularly in economically backward states.

It is necessary to refer to the concept of 'Basic Needs' to find out the indices of standard of living. The ILO document 'Employment Growth and Basic Needs': a one world problem (1977), stated: The definition of a set of basic needs together constituting a minimum standard of living would at one and the same assist in the identification of the poorest groups and provide concrete targets against which to measure progress. It defined satisfaction of basic needs in two elements :

(1) Meeting the minimum requirement of a family for private consumption, food, shelter and clothing and also household equipments and furniture.

(2) Essential services such as safe drinking water, sanitation, public transport, health and education i.e. items of social consumption.

The Sixth Plan aimed at providing basic needs of life such as drinking water, health care, rural road to the poorer sections and minimum services for those living in urban areas. Various components of the MNP were visualised as integral parts of package of facilities in a given unit area through convergence of services.

The Study Area :

The study area covers 15 iron ore, manganese and chromite mines of Keonjhar District. The district is not only enriched with minerals but also predominantly inhabited by tribal people with ancestral beliefs, values and culture. The SC and ST population in the district constitutes 11.6 and 44.82% of the state population of Orissa. The tribal economy is 'inward looking' in character with weak polarisation effect. The district is well known in the industrial map of Orissa and India for the growth of a large number mineral based industries. In this context the workers in the mines need amelioration of their living standards.

In the tribal belt, the tribals constitute the weaker section of the lower socio-economic strata of the society and it is imperative to safeguard their physical and mental wellbeing by proper labour legislations and welfare measures. The main places of mineral interest in the district covered in the study are Bolani, Joda, Banspani, Thakurani, Gandhamardhan and Baula. The total SC and ST population in the district are 55.98% which occupy the third rank in the state. The average number of persons employed daily in 85 working mines in the Keonjhar district are 20,038 which constitute 35.47% of the total workers in the district and 28.79% of the miners in the state. Of the total area of the district, 48.98% is covered by forest with wider hill ranges.

Objectives of the Study :

The present study embarks upon visualising certain changes in the socio-economic life of tribal workers engaged in the manual operations in the mining industry on the basis of definite standard of living index.

The study pursues the following objectives :

1. To identify and develop a set of indicators for measurement of standard of living of the mine workers and assess the validity and reliability of the same.

2. To analyse the life indices such as quality of diet, food, security, clothing, housing, pattern of income and expenditure. Occupational status, dependency ratio, drinking water, education, health and sanitation etc. to evaluate the standard of living of the miners.

3. To examine and find out the causes of their low and deplorable standard of living, poverty and destitution.

4. To make a comparative study of the standard of living of the miners in the public and private sector mines.

5. On the basis of the findings to present some policy proposals for amelioration and upliftment of the standard of living of the miners.

Methodology Adopted :

The study is based on the empirical survey of the miners. The investigation has been made keeping in view the objectives of the study on the basis of primary data by canvassing predesigned structural interview schdedules by personal interrogation to the miners. Altogether 15 mines were selected and covered in the study out of 85 working mines. A total number of 250 schedules were used of which 100 were used in the public sector and 150 in the private sector and 157 (62.80%) are males & 93 (37.20%) are females. Stratified purposive sampling and stratified random sampling technique were followed. Contact and discussions were also made with the local shops, mines, hospitals and tribal development officials to strengthen the findings of the enquiry.

Measurement Indicies :

(*i*) *Food and Nutrition* :—Working in mines is obviously a muscular exercise which requires adequate and nutritive diets. The output of work by the human machine is .closely related to the quality of food he takes. It also calls for 'food security' which implies an availability of sufficient food at all times for all the people to ensure an active and healthy life. Sufficient food refers to both the quantity and quality required for good health and efficiency. 'Nutritional security' is not only related to food security but also combination of other inputs like health services.

The study reveals that the food taken by the workers is both quantitatively inadequate and qualitatively deficient. Malnutrition is the rule rather than the exception. The food taken primarily consists of carbohydrates. Soaked and boiled rice is the principal food. Due to want of the required amount of vitamins, proteins, minerals and fats the efficiency of the miners deteriorates and they are victims of various diseases. A considerable proportion of the workers live in semi-starvation condition with sub-human existence. When the workers were asked why do they work, almost in every case the reply was "I came for the sake of my stomach". Some of course choose to work to improve their living conditions. Their low standard of living and consequent inefficiency have become the cause and effect of low earnings. Workers' spending on rice varies between 20% to 60 % of their expenditure. Of the 250 workers, 122 are in the lowest income brackets of Rs 400-600 per month; only 38 workers can afford to have green vegetables which amount to 31.14%. However among them the hightest income group of Rs 1600-1800, mostly the employees of Joda Tisco mines and Bolani Iron ore mines have an impressive standard of living. Milk, ghee, sugar, fish and egg are very rarely taken. Chicken & eggs are sold in local markets. For the purpose of eating meat, workers of lower castes mostly tribals rear sheep, fowl, goats and pigs. Though 70% of the workers keep a few chikens, goats and pigs, they sell them to support their bare existence. The lower income groups spend 84% on food items which decline to 50% in case of higher income groups. The study shows that 89.6% of the total miners are addicted to 'Handia'—i. e. a home brewed rice beer and liquor to get relief from strenuous life they live in mines. A large majority of the workers (72.4%) take tobacco and raw leaves called 'Khaini.'

(ii) Clothing :

As regards clothing some could not get their clothes stitched for a considerable time and wear half torn clothes. On an average a worker spends Rs 25 to Rs 75 per month accounting 5 to 7% of his income. The workers are not only ill-fed but also ill-clad. The clothes worn by male and female workers are coarse and scanty. They are under clothed and can not meet what the social norm demands losing their privacy. The scanty clothing of the miners is an idex of their abnormally low standard of living. Most of them work bare footed.

(iii) Housing :

Because of their distinct location mining industries have to provide housing to the workers. It has been observed that the houses provided by the companies are better than those provided by the contractorst—he malfunctional midlemen. 'Of the total 70% of the workers have only one room houses used for all purposes in their domestic life. They are ill planned, unsafe, over crowded, dark, lacking in privacy and ventilation. The miners have to live under filthy, congested and insanitary conditions. The average miner family has five persons living in such small rooms. The public sector mines provide housing facility to 49% and private mines to 26.34% of the workers. Of the total workers 73% are not provided with accommodation. In mines under TISCO of Joda East and Joda West and under SAIL at Bolani, workers are provided with pucca housing with kitchen facilities. Of the total, 51% of the total workers in the public sector and 70% in the private sector are local labourers living in their own houses which are unfit for human habitation. Housing facilities provided by the companies are better than provided by the contractors.

(iv) Drinking Water :

To add to the miseries of the workers, 43.2% use forest stream, 6% use pond and pools, 30.4% mobile water tanks, 11.6% public pipe and 8.8% Tube well. The mobile tankers carry dirty waters blocked and accumulated in low land areas in the mountain valleys. Hence more than three-fourth workers use very unsafe and unhygienic water. Water collected from the mobile tanks in earthen pots is insufficient for drinking and cooking purposes.

(v) Fuel and Light :

The study shows that 72.8% of the workers use forest wood, dry leaves and cowdung as fuel for cooking purposes. 16% of workers use kerosene stoves and 11.2% in TISCO and SAIL mines use electric heaters which are certainly an indication of higher living standard. Regarding domestic lighting, 70% of them use lamps, lanterns and kerosene kumpis and 30% use electricity.

(vi) Household Articles :

The miners can hardly afford to possess even the most essential household articles. The earthen and aluminium cooking utensils are minimum in quantity and inferior in quality. One can find in one corner of their houses a few rags, pots, and a heap of wood in another corner. However workers under TISCO & SAIL mines can afford to possess bicycles, mopeds, wrist watches, quality utensils etc.

(vii) Health Status :

Health status includes indicators like infant survival preventive medicine, family planning, nutrition, early detection of morbidity, referal

services etc. The study reveals that illiteracy, early marriage, repeated pregnancy, morbidity, poor quality of ante-natal and post-natal care are multitude of factors which have adversely affected the physical quality of life index of women worse than men. Very few expectant mothers have made health check ups. According to National Perspective Plan for women, the Indian women on an average are pregnant 8-9 times, resulting in around six live births of which 4-5 finally survive. They spend 80% of their reproductive years in pregnancy and lactation. The study corroborates such facts. High infant mortality is a sensitive index status. A high percentage of 47% of the female infants and 42% of male infants of the miners in the age group 0-4 years were found in a state of malnutrition. Less than 8% of the children were immunised. Three-fourth of the children under five years are malnourised, 40% of the children die before the age of five. Attitude and ability towards health modernity were found to be very poor. High mortality rate attributed to improper food, insanitary housing and lack of adequate and proper medical facilities.

Dependency Ratio :

The standard of living can be judged by the number of persons in the family, number of dependants, number of earner and amount earned. The Royal Commission on Labour observed that, in respect of both income and expenditure it is the family not the individual that is important in relation to standard of living and proceeded to consider the size of the family earnings in relation to family expenditure. The study reveals that the percentage of workers with three dependants is the highest 126 (50.40%) and with 5 dependants the lowest 6 (2.40%). The dependancy ratio is calculated to as 1 : 2.38. Only 15.2% of the miner couples adopt family planning.

Literacy :

More than four-fifths of the male workers and nine-tenths of the female workers are illiterate and as a whole only 15% of the miners are literate. In the sample of 250 workers 157 (62.8%) send their children to schools or colleges. The extent of dropout at the primary stage is 75.79% and at secondary stage 89.47%. Hence the educational attainment of the miners is not encouraging. Bulk of the miners prefer their children 'earning to learning'.

Occupational Status and Income :

The tribal labour market is characterised by participatory rate of women and pre-ponderance of casual and contract workers. The range of average monthly income of the workers vary from Rs. 400 to 1800 per month. The low range income workers are mostly casual workers and in small private mines while high income groups are under TISCO and SAIL mines getting as high as Rs. 81 and Rs. 47 respectively per day compared to only Rs. 19 in private mines. Contract workers are largely unorganised and are victims of various malpractices and exploitative evils of wage payment and there is violation of Minimum wages Act 1948. The poor tribal miners also supplement their income by subsidiary occupations like goatery, poultry, sale of minor forest products, dryland agriculture etc. There is also violation of Maternity Benefit Act and Equal remuneration Act and there is differential treatment of women in private mines. Working condition is also far from satisfactory.

An X-ray of the Income—Expenditure pattern reflects that the workers have proverbially low standard of living, the principal cause lies in low earnings and consequent indebtedness. Of the 250 miners interviewed 204 (81.61%) have deficit in their monthly family budget expenditure. They live in growing debt and distress. The primary purpose of borrowing is to meet basic necessities of life and additional expenditure on festival occassions. Highest percentage of the i ndebted miner, 51.48% borrow from local petty retail shopkeepers in the form of weekly credit purchase. Only 6% borrow from the banks and 20.09% from the co-operative societies. Of the total borrowers 204 workers, 46 (22.54%) are indebted due to 'Dadan' advance. Only 18.4% of the miners could afford to save varying from Rs. 50 to Rs. 300 per month.

Poverty, limited aspirations and inadequate availability of savings institutions can be attributed to their low saving. The central message of the empirical analysis reinforce the conclusion that the people are used to bear with poverty and destitution and accommodated with the status quo situation witout any aspiration for ambitious change, the idea which J. K. Gabraith calls, "The Accommodation Hypothesis."

Suggestions For Amelioration of The Miners' Living Conditions :

In view of the fact that there has been no designed improvement of the socio-economic conditions of the miners in a tribal belt, some feasible strategies and policy recommendations can be made for amelioration of their lot.

(i) Priority must be accorded on social infrastructure such as transport, irrigation, education, public health and various referal services.

(ii) Large number of mineral-based industries should be setup in the district and the state, to widen the demands for workers and provide better working and living conditions.

(iii) Standardised wage structure must be fixed taking into account the productivity of the workers and need-based minimum wage.

(iv) Dryland agriculture needs to be promoted in the tribal mining areas in the hill ranges for production of oil seeds & pulses to supplement earnings and remove poverty.

(v) To make the process of socio-economic change self-propelling the right type of approach is to stress on structural and institutional changes.

(vi) Public policy should ensure more strict and effective implementation of the statutory provisions with regard to employment wage rate and the welfare amenities.

(vii) Effective distribution of essential commodities must be made available to the workers to meet their requirements at resonable prices.

(viii) Proper control and regulation and decasualisation of labour must be made.

(ix) Mobile banking service may be provided at the doorstep of the people.

(x) An active tripartite co-operation of the employers, Govt. & Workers needs emphasis for due survival of the Men of the Mines' and their social mobility. A good understanding between the workers and the employers will be more effective than legal methods.

It is necessary to plan, organise, create conditions and take precaution that the miners do not become a casuality in the process and the real benefits percolate down to them. It is an economic, legal and humanitarian issue.

Measurement of Standard of Living : An Indian Experience

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Introduction :

In the past much attention was given to per capita income for measuring the level of development of a country. It is now realised that, rapid material production has an inbuilt tendency of neglecting employment and distributional aspects of growth.[1] Further, the per capita real income criterion conceals human side of development. Developing countries have population with poor health, low level of literacy, inadequate dwellings and meagre diets.[2] The underdeveloped countries are confronted with .maladjustment between wants and earning capacity, the former outstripping the latter.[3]

It is now widely agreed that development involves growth plus change embodied in the improved performance of factors of Production, development of institutions and change in attitudes and values.[4]

The test of standard of living is satisfaction of the needs of people. Living standards are closely related to a bundle of goods, necessaries— conveniences and comforts that are available to the people of a country at a particular period of time. Standard of living is subjective, because there is room for disagreements about the type of commodities, that are to be included in standard of living.

The standard of living is a dependent variable. It depends on the availability of natural and capital resources, work ethics of people and growth performance of different sectors of the economy. The level of efficiency of Government and development of a research climate in the economy are the other determinants of standard of living.[5]

Methodology :

The present paper is structured as follows : —Section-I deals with the measurement of per capita expenditure. The concentration of Section-II is on Nutritional standards for computing living standard. Engel's Law is discussed in Section-III and social indicators have been reviewed as the barometer reflecting the standard of living of the masses in Section-IV and the concluding remarks at the last. The academic exercise is based on Secondary data. The focus of the paper is limited to per capita monthly expenditure, nutrition, Engel's Law and selected social indicators. The analysis concentrates mainly on developments in Indian economy because development efforts in India have been consistently directed towards achievement of progressive improvement in the standard of living of the masses.[6]

SECTION-I

One measurement of living standards is the level of average consumption per head.[7] Prices may change and rise in money value and consumption has to be corrected by choice of an appropriate price index. According to this criterion, a low level of consumer expenditure connotes a low level of development.

In India, the Planning Commission has defined poverty line in terms of calorific value amounting to 2,400 calories in rural and 2,100 calories in urban areas.[8] On this basis, an annual per capita expenditure of Rs. 240 in rural and Rs. 270 in urban areas was sought to be provided to the people of the country.

Available statistical records suggest that, the per capita monthly expenditure of an average Indian has increased from Rs. 68.89 in 1977 to Rs. 164.03 in 1983 in urban areas, however, the per capita monthly expenditure appears to have increased at a snails pace from Rs. 68.89 in 1977 to Rs. 112.45 in 1983. It follows, that the increase in the per capita outlay at country level is not impressive.

Development may be viewed as an instrumental process for overcoming abysmal poverty. The growth performance of planning in India however, has not succeeded in providing a monthly per capita expenditure of Rs. 131.80 (fixed in the Eighth Five Year Plan) for 30% of population.

There is a large body of consensus that an economy ascends in socio-economic ladder to the extent that, the poorer sections of society enjoy a greater increase in consumption expenditure than before.

TABLE—1

Share of the Poorest 30% in Consumer Expenditure.

Sl. No.	Sector	1958-59	1977-78
1.	Rural	13.1%	15.0%
2.	Urban	13.2%	13.6%

A perusal of the above table reveals that, after two decades of plan exercise at country level the share of the poorest 30% in rural areas has moderately increased from 13.1% in 1958 to 15.0 in 1978. The corresponding increase in urban areas for the poorest 30% was marginal in the reference period. The reckoning, therefore is that growth benefited the poor marginally in India.

SECTION-II

Standard of living is closely linked with nutrition. It is instructive to note that sick people do little to add to a country's economic growth. Contemporaneous economic development reveals that, China has made remarkable progress in fulfilling basic needs of low income group through a mixture of state rationing and collective self-assurance.[10] As per Economic Survey, 1980-81 per capita net availability of cereals has impressively increased from 360.5 grams in 1956 to 420.4 grams in 1981. The debit side of the story, however is the steep decline in the per capita net availability of Pulses from 70.4 grams in 1956 to 391 grams in 1981.

Few would deny that the well-being of a person depends on the intake of a minimum amount of basic needs of life. The estimates of the Sixth Five Year Plan show that, the per capita monthly consumption of foodgrains is merely 12.98 kgs. The level of consumption of 0.85 metres of cloth and 0.68 kgs. of sugar per month per head are too low to suggest a decent living standard of people. Hence India is a slow moving country.

From a qualitative standpoint the level of living of the people of a country depends on regular intake of a balanced diet. So an enquiry into the diet value of good daily taken by people has assessed and compared with the levels of different types of food recommended by medical experts.

TABLE—2

Balanced Diet and Availability of food in ounce per an adult per day.

Year 1956 (Per Adult in Ounce Per Day)

ITEM	Composition of a balanced diet	Estimated net availability for consumption
Cereals	14	13.6
Leafy Vegetables	03	02.9
Other Vegetables	04	N.A.
Vegetable Oils	02	0.38
Milk and Milk Products	10	5.7
Meat	04	0.17
Fish		0.23
Egg		0.03
Nuts	03	1.52
Sugar and jaggery	02	1.8

Source : Vasanta Desai "A Study of Rural Economies (P-148)"

It is clear from the table that, there is palpable deficiency of milk and milk products, animal food and nuts in Indian food. Protein deficiency is much pronounced. One is reminded of the observation made by Paul Samuelson, "You are often hungry and the food you eat is mainly roughage or rice".

SECTION-III

The routes of development followed by countries like U.S.A., Japan, Singapore and Korea suggest that living standard of a country has close relation with Engel's Law. The Law denotes the total of expenditure on food items. A smaller ratio indicates a better living standard and a higher ratioo cannotes a low standard of living. It was noted that people with higher incomes spend relatively more on manufactured goods and relatively less on food items. The following table illustrates the point.

TABLE—3

Statement Showing Engel's Ratio in India

	32nd Round 1977-78 (NSS)		1983 33rd Round		1989-90		1990-91	
	Rural Areas	Urban Areas	Rural Areas	Urban Areas	Rural	Urban	Rural	Urban
India	64.35	59.98	65.57	59.12	64.28	55.52	65.97	56.85

Source : Economic Survey, 1988-89 Govt. of India (P-17) and Economic Survey 1993-94 Govt. of India (P-19).

Data analysis of the above table unveils that a lion's share of total expenditure is claimed by food items, both in rural and urban areas of the country.

SECTION - IV

Social indicators are more useful for assessing differences in the levels of living than estimates in money terms. Trends in private consumption may not take into account improvement in the levels of living of people brought about by public expenditure.

One visible social indictor is health. There has been some progress at country levels in recent times in partial containment of malaria, small pox and Polio. The availability of 97 beds per lakh of population in the country, too is a note - worthy development. It is widely agreed that, outlay on health reduces the probability of illness and gives rise to leisure consumption opportunity frontier. One notable development in recent times is improvement in life expectancy at birth from 52.3 years in 1981 to 57.8 years in 1991. Few would deny that "Health" is an entitlement that emphasises the capacities of masses. Consequent upon plan endeavour, infant mortality rate at country level has come down from 110 per thousand in the last decade to less than 80 per thousand in the current decade.

Another area, where some progress has been made is education. The literacy rate of 52.11% at country level does not appear to be striking, when we compare it with cent percent literacy level of western countries.

The per capita consumption of electricity is 330.6 kws in India and the average lags far behind the Korean average of 914.8 kws and Taiwan's average of 2,131.2 kws.

The provision of one Bank per 14,000 population, a railway route of 9 K.M. per lakh of population and an average road length of 222 K.M. per lakh of population at country level by public authorities reveal that the economy has covered some ground in ensuring the bare minimum for the masses.

Conclusion :

It is clear from the study that there is close association between per capita monthly expenditure and standard of living of a country. Other indicators like per capita intake of cereals and pulses per day, balanced diet, Engel's ratio and social indicators provide us an insight into the living standards of a country. An over-all assessment of the economic performance of Indian economy during plan period has revealed that the average Indian occupies a small place in the map of development.

For measuring development, the standard of living criterion appears to be superior to the per capita real income criterion as it considers the impact of developmental programmes on mass welfare in terms of per capita expenditure, intake of specific diet and health status of people. In order to make a dent on the level of living of the masses at country level much leeway has to be made for improving the growth performance of wage goods like cloth, sugar, edible oil, electricity, tea, fabrics and pulses.

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Standard of Living : Measurement, Decomposition and Intersectoral Comparison

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SECTION—I

Introduction :

The basic aim of planning exercises and development policies of Govt. of India has been to improve the standard of living of the population and especially of the socio-economically weaker sections of the society. Special programmes have also been undertaken to pull up the weaker sections along the economic ladder. Social Science researchers claim that neither the "trickle-down" nor the "pull-up" strategy did succeed in enabling the relatively less privileged class of the society to lead a reasonably better life due to leakages at the stages of evolution of the strategies, formulation of the schemes and implementation of the measures. Consequently fierce differences in living standards continue to persist among different socio-economic sections of the population. An attempt has been made in the present paper to examine the validity of this assertion in respect of four broad groups of population in Orissa.

Objectives :

The important objectives of the study are :

(i) To evolve a methodology of estimating the standard of living of the people;

(ii) To estimate the standard of living of different social groups; and

(iii) To measure the extent of differeces in standard of living over these social groups.

Data Base and Methodology :

The present study is based on primary household survey data on monthly consumer expenditure. To cover the wide range of population spread over the state, a multi-stage stratified random sampling design has been adopted, the sampling units being the households of four social groups selected at random from five villages of Patna Block in the district of Keonjhar. The study area has been purposely selected on grounds of convenience. From each village three households belonging to each social group for the four groups i.e., Scheduled Castes (SC), Scheduled Tribes (ST), Backward Castes (BC) and other Castes (OC) have been randomly selected. Thus the total sample comes to 60 with 15 from each of the four social groups. The standard of living is studied in terms of the cross-section data on per capita monthly consumption expenditure at current prices arrived at the discrete adult equivalent scale in respect of these 60 households for the year July, 1994 to June, 1995. Simple arithmetic mean and co-efficient of variation are the standard statistical tools used to analyse the data and draw conclusions.

SECTION—II

Index of Standard of Living :

Any discussion on standard of living involves three inter-related basic issues i. e.,

(i) What is the meaning of standard of living ?

(ii) Standard of living of whom is to be measured ?

(iii) How is the standard of living measured ?

Defining standard of living is a herculean task because it involves a number of complex conceptual and practical problems and is influenced by both quantitative and qualitative factors. Existing literature on the subject defines standard of living in terms of actual living conditions. This defination of standard of living is accepted.

The answer to the second issue is obvious. Naturally, when one talks of standard of living, he certainly means standard of living of the people, may be individuals or groups living in a household. Since living conditions of an individual can not exactly be separated from that of others in the family owing to presence of economics of scale in consumption, households and not individuals are taken as the units of measurement of standard of living. In fact, households are the basic income—expenditure decision-making units enjoying a particular level of living. For all practical purposes, it is, therefore, customary to estimate the standard of living at the household level.

The third issue concerning the measurement of standard of living is highly complex and largely an unresolved one. The standard of living of a household is governed by physical needs, the general laws of human behaviour and is esepecially subject to such influences as the physical needs of being, needs essential to the group with which the household identifies itself, the social customs & traditions and its desire to receive admiration and applause of its fellow households. Standard of living is basically identified with a social class. The standard of living of a household belonging to a social class is determined by the goods and services (private and public) used by the class and particularly by the levels of consumption, food and nutrition, housing, education, health, forms of recreation and the social security measures. It thus portrays the ways of life of a household in respect of a social class.

It is impossible to make accurate measurement of standard of living because standard of living is a multidimensional concept and any unidirectional measure is inadequate. The issue of measurement of standard of living is, therefore, a misnomer and basically a theoretical one.

Attempts have, however, been made to measure the standard of living in both ordinal and cardinal terms. Ordinally, construction of the social welfare function of the Bergson—Samuelson type is the most widely used measure of standard of living. But being a purely ethical measure concerning the society at large, standard of living of a household can not be measured on the basis of the social welfare function. Cardinally three indices of standard of living viz, income, non-income economic assets and consumption are often used.

Income is frequently used as a rough measuring rod of standard of living. But it gives an incomplete measure as it fails to take into account less measurable but more important factors such as welfare services, health and education facilities, the conditions of work, opportunities for recreation and so on. Again, the correlation between private household income and standard of living is at the best weak. In view of differences in tastes, habits, literacy, attitude towards life and such other factors across social group households with high income levels need not necessarily be the ones with higher standard of living. On similar grounds, there also exists a weak correlation between non-income economic assets and standard of living.

Consumption expenditure (implicit and explicit) is the most widely used conventional measure of standard of living in empirical studies concerning this field of analysis. Household expenditure are infact, a better measure of standard of living than income and non-income economic assets for the simple reason that it is consumption rather than income and assets that is an indicator of actual living conditions. Because income may overstate or understate the level of living due to high saving and/or non-availability or rationing of goods; or dissaving or borrowing when current income is inadequate to buy the necessary goods for consumption purposes. The size and components of expenditure are, therefore considered important in any practical study of measurement of standard of living.

But measurement of standard of living on the basis of total amount of household consumption expenditure would be a wrong estimate in view of presence of intra-household inequalities in age-sex structure and variations in size and economies of scale in consumption across households. Within a household there is inequality in need as among economically active persons, children and the aged ; and women and girl children are often found voluntarily (!) relinquishing consumption. The consumption pattern, therefore, remains highly skewed against the children, women and the aged in the family. Further, due to the existence of economies of scale in consumption, larger families need to make proportionately lower expenditure to enjoy the same level of living in comparison to a smaller family.

Thus, the differences in per capita consumption expenditure per se do not seem to be good indicators of differences in standard of living across households. Some form of standardisation need to be made for intra-household differences in size, composition and economies of scale in consumption and hence the inevitability of the use of adult-equivalent scale in measurement of standard of living. The FAO, WHO as well as some countries have attempted standardisation of household members into adult equivalents. For Rural India, the National Sample Survey estimated some weights for conversion of individuals into adult consumption units and these weights are given in Table-1. These weights have been used in this paper to estimate adult eqivalents.

SECTION—III

Analysis of Field Data :

The equivalent per capita monthly private expenditure as an indicator of standard of living and the variations (measured in co-efficient of variation) for each of the four social groups are presented in Table-2. It is evident from the table that, the levels of expenditure are the highest in respect of OC (Rs. 206) followed by BC (Rs. 168), SC (Rs.144) and ST (Rs. 142). The social-group-wise comparisons reveal in unambiguous terms, the superiority of the standard of living of OC group followed by BC, SC and ST in that order. This amply illustrates the failure of developmental efforts in raising the standard of living of the socio-economically weaker sections of the population to keep up with the well-to-do sections.

The social group-specific data on variations on per capita equivalent monthly consumption expenditure as indicated in Table - 2 show that the variations in levels of living are the maximum for SC group (8.38%) and the minimum for OC (3.92%) while that for the ST (7.47%) and BC (6.19%) groups lie in between. This shows that the households among the SC, the ST and the BC have the disadvantage on both the dimensions in comparison to their OC counterparts.

The standard of living of the people has a close relation with Engel's law which denotes the share of expenditure on food items in total household expenditure. A high Engel's ratio is indicative of the pervasiveness of poverty and low standard of living and a lower Engel's ratio is a reflection of better living standards. The Engel's ratio for the rural areas in India as estimated by the NSS is shown in Table - 3. It may be read off the table that the Engel's ratio is consistently higher for the rural areas of the country and is stable around 66 per cent.

The details of expenditure pattern (in percentage terms) of the sample households and estimates of Engel's ratio for the four social groups are shown in Table - 4. The consumption expediture of the sample households can be grouped under three broad heads viz : Food including rice, wheat, vegetables, pulses, meat, fish, egg, sugar, salt and oil ; beverages comprising smoking items, pan and alcoholic drinks ; and other items such as clothing, fuel, medicine, education, household articles and recreation. Comparison of the pattern of consumption expenditure across social groups indicates that the percentage shares of food, beverages and other items in total household consumption expediture respectively come to 75, 13 and 12 for the SC group ; 77, 18 and 5 for the ST group ; 71, 11 and 18 for the BC group and 56, 5 and 39 for the OC group. It is therefore evidenced that expenditure of food items claims a lion's share of total consumption expenditure for all the social groups. Accordingly, the Engel's ratio remains very high. It is observed to be the highest for the ST (77%) followed by the SC (75%), the BC (71%) and OC (56%). Next in order comes the beverages and other items respectively for the SC & ST groups. But for the BC & OC groups, expenditure of food items is followed by other items and last in the order comes the beverages. This pattern of consumption expenditure by the four social groups also speaks of the difference in their standard of living in the society and confirms the results obtained on the basis of the data presented in Table-2.

SECTION—IV

Conclusion :

Developmental Government. policy aims at maximisation of social welfare in general and of the socio-economically weaker sections of the population in particular. Measuring standard of living of the people is therefore important in analysing the percolation effects of development. But until recently measurement of standard of living has remained a neglected area of research. Owing to the measurement problem associated with some of the accepted indices of standard of living viz ; social welfare function, income and assets, the present paper attempts to measure the standard of living over a cross section of 60 sample households in terms of the per capita monthly consumption expenditure on the basis of the discrete adult equivalent scale in a static framework. The inherent limitations of the analysis do not permit to draw general conslucions. The study, however, throws ample light on the dimensions of standard of living of various social groups in the State. Analysis of equivalent per capita monthly consumption expenditure, variations therein and the Engel's ratio reveal that levels of living are highly uneven across social groups and the socio-economically weaker sections of the society still lag far behind their well-to-do counterparts. Improving the standard of living of the relatively less privileged sections calls for promotion of the wage goods sector and creation of enough job opportunities in the country side.

TABLE—1

Weights For Estimating Equivalent Adult Consumers India, 1971-72

Age Group	Males	Females
0	0.43	0.43
1-3	0.54	0.54
4-6	0.72	0.72
7-9	0.87	0.87
10-12	1.03	0.93
13-15	0.97	0.80
16-19	1.02	0.75
20-39	1.00	0.71
40-49	0.95	0.68
50-59	0.90	0.64
60-69	0.80	0.51
70+	0.70	0.50

Source : N. S. S., All India, Rural, 26th Round, July, 1971-June, 72.

TABLE—2

Levels of Living in Rural Orissa

Social Group	Equivalent Per capita Monthly Expenditure (Rs.)	Variations
SC	144	8.38
ST	142	7.47
BC	168	6.19
OC	206	3.92

Source : Primary Data.

TABLE—3

Engel's Ratio For Rural Area in India

Year	Engel's Ratio
1977-78	64.35
1983	65.57
1989-90	64.28
1990-91	65.97

Source : Govt. of India, Economic Survey-1988-89 & 1993-94

TABLE—4

Components of Household Expenditure And Engel's Ratio
For Different Social Groups

Social Groups	Percentage of consumption expenditure			Engel's Ratio
	Food	Beverages	Other items	
SC	75	13	12	75
ST	77	18	5	77
BC	71	11	18	74
OC	56	5	39	56

Source : Primary Data.

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TENTH FINANCE COMMISSION AND ORISSA

Tenth Finance Commission and Its Impact On the Public Debt in Orissa

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1.1 Centre-State Financial Relations and the Role of Finance Commission :

The Constitution of India provides for two layers of Government, one at the Central level and the other at the Sate level. Such a system, it was conceived, wculd be most suited to Indian Conditions as it would at onc ehave the advantage of a strong united central power and the essential values of federalism.

Exact correspondence of resources and functions is not possible to secure in any federal situation. A kind of vertical imbalance of resources and expenditure responsibilities emerges between different levels of Government, calling for transfer of resources from the Centre to the States. As a matter of fact, transfer of resources is effected both directly and indirectly. Direct transfer of resources is made through: (a) statutory transfers by Finance Commission, (b) Plan transfers through Planning Commission, (c) Discretionary transfers through Central Ministries. Indirect transfers are effected through (a) establishment/expansion of central public sector enterprises and (b) distribution of loans by financial institutions under the control of the Central Government.

The Finance Commission is a unique feature of the Indian Constitution having no parallel in the existing federal constitution of the world. In India the Finance Commission has replaced political bargaining by objective criteria in regard to devolution of resources, ensuring at the same time flexibility in revenue sharing.[1]

The primary function of a Finance Commission is to evolve a scheme of transfer of financial resources from the centre to the state so as to ensure financial equilibrium at the two levels of government during the period of its award and to design a formula to allocate resources so transferred among the States.

It may be observed that while the non-plan revenue gap of the states is looked after by the Finance Commission, the Planning Commission takes care of the plan gap both on revenue and capital accounts. The Central Government is empowered to make loans to the states and it has been doing so ever since the beginning of plan era. These are largely meant for implementing five year plans. The large loan component of plan assistance has proved very burdensome for the states over the years and because of their failure to repay central loans, the debt and debt servicing liabilities of states have been mounting. The problem has been aggravated in the recent years. Almost all the Finance Commissions have examined this problem from several angles. The present Tenth Finance Commission, under the Chairmanship of K. C. Pant has dealt with this matter extensively and suggested remedial measures to redress the debt burdern of the states. It is in this context that an attempt is made to analyse the impact of the recommendations of the Commission on the public debt in Orissa.

1.2 Size and Composition of Public Debt in Orissa.

Central Government enjoys the monopoly power of raising borrowings both internally and externally. In the recent years external borrowings of the Central Government constitute a significant proportion in the total debt of the country. On the contrary the State Government is altogether forbidden to raise loans from outside the country. It only enjoys the privilege of raising loans internally. Accordingly, the Government of Orissa has depended heavily upon internal loans.

The dependance on internal borrowing has increased due to consistent revenue deficit faced by the State. Revenue deficit which in absolute terms stood at Rs. 60.1 crores in 1985-86, increased to Rs. 507.3 crores in 1994-95. As a percentage of SDP, Revenue/SDP ratio has moved from 0.9 per cent in 1985-86 to 1.7 per cent in 1994-95.

The size and composition of public debt in Orissa is seen from Table-1.

Table-1 indicates that the total outstanding debt of Orissa was Rs. 2309 crores in 1985-86. This increased to Rs. 8379 crores in 1994-95. Over the years the increase was 3.6 times. As a percentage of Gross State Domestic Product of Orissa at current prices, the debt/SDP ratio moved from 38.9 per cent in 1985-86 to 45.1 per cent in 1994-95. This indicates that nearly half of the Gross State Domestic Product of Orissa is composed of internal borrowings and this is the most alarming issue for the state. Per capita debt burden, therefore, increased from Rs. 723 in 1985-86 to Rs. 1927 in 1994-95.[2]

TABLE—1

Growth and Composition of Public Debt in Orissa : 1985-86 to 1994-95
(in Crore of Rs)

Year	Internal Debt	Loans and advances from Central Govt.	Provident fund etc.	Total debt outstanding	As a percentage of GSDP (in per cent)
1985-86	476 (20.6)	1508 (65.3)	325 (14.1)	2309 (100.0)	38.9
1990-91	1170 (24.7)	2676 (56.4)	898 (18.9	4744 (100.0)	49.0
1994-95	2438 (29.0)	4175 (49.8)	1766 (21.2)	8379 (100.0)	45.1
Increase over time	5.1	2.8	5.4	3.6	

Source : RBI, Report on Currency and Finance (Relevant issues).

Note : (i) Figures are rounded upto the nearest total.

(ii) Figures in brackets indicate percentage share to the respective totals.

(iii) Internal debt consists of: (a) market loans and bonds (b) Loans from banks and FI's and (c) Ways & Means advances of RBI.

The outstanding public debt of the state is composed of : (a) internal debts, (b) loans and advances from Central Government and (c) Provident funds etc. In the outstanding debt, short term funds like reserves and deposits are not taken into consideration. The foregoing table indicates that loans and advances from central government account for a larger percentage share in the total outstanding debt. As for instance in the year 1994-95, Central loans alone accounted for 49.8 per cent of the total outstanding debt. Compared to this, percentage share of internal debt and provident funds etc. accounted for 29.0 per cent and 21.2 per cent respectively in 1994-95.

It is important to observe that between 1985-86 and 1994-95 the percentage share of internal debt in the total outstanding debt increased from 20.6 per cent to 29.0 per cent during this period. Likewise, provident funds etc. showed a rise from 14.1 per cent to 21.2 per cent in the afforesaid period. Contrary to this situation, the share of central loans in the total outstanding debt which stood at 65.3 per cent in 1985-86, declined to 49.8 per cent in 1994-95. The decline of the share of central loans in the total debt is due to poor repayment of loans by state government earlier. In order to finance developmental and non-developmental activities, therefore, the state has moved in favour of high cost borrowings.

1.3 The Mounting debt burden :

Debt is not a problem when it is fully paid back. This rarely occurs and more so, when the state is of a low income and backward state. Repayment of loans is inadequate and there in rise in interest rate burden. Table-2 indicates repayment of loans and interest rate payments by the state to reduce debt burden.

TABLE—2

Repayment of Loans and Payment of Interest on Loans in Orissa 1986-87 to 1994-95 (in crores of rupees)

Year	Repayment of loans	Payment of interest amount	Total repayment	Total debts	As a % of debt
1986-87	405	172	577	2309	24.9
1990-91	1017	365	1382	3921	35.2
1994-95	1345	792	2137	7041	30.3
Increase over time	3.3	4.6	3.7	3.0	

Source : Government of Orissa, B. S & E. Orissa Budget in Brief (1995-96) Cuttack, 1995, PP. 34-35.

Note : (i) Repayment of loans relates to repayment of internal debt, central loans and provident funds.

(ii) Figures are rounded up to nearest totals.

(iii) The figures exclude the recoveries of loans made by state government and interest payments received by the state for loans advanced.

The table indicates that the repayment of principal and the rate of interest which amounted to Rs. 577 crores in 1986-87 increased to to Rs. 2137 crores in 1994-95. Over the years the increase was 3.7 times. As a percentage of total debt, total repayments constituting principals and rate of interest accounted for 24.9 per cent in 1986-87. This stood at 30.3 per cent in 1994-95. This indicates that the unpaid debt outstanding is still around 70 per cent in the state. Poor repayment is one of the factors for reduced central assistance to the state. The Tenth Finance Commission in this connection rightly observes that, "with growing repayment obligations, the ratio of fresh loans taken on a gross basis, and funds that actually become available net of repayments is bound to move adversely with smaller and smaller amounts being available as not borrowed funds".[3]

An analysis of state-wise debt position reveals that the outstanding share of debt of low income states comprising Madhya Pradesh, Rajathan, Uttar Pradesh, Orissa and Bihar in total debt of all states stood at more than 38 per cet on an average between 1985 and 1994. Over the years the growth rate of debt for this group however declined. Among the individual states in this category almost all the states with the exception of Uttar Pradesh had a declining growth rate of outstanding debt to total during this period. On the other hand, the high income states improved their position considerably. Almost all the states, with the exception of Haryana had a positive growth rate. Even the group as a whole has exhibited a positive growth rate. They accounted for about a quarter of outstanding debt of all states put together. Two important conclusions emerge from this trend. First, the states where fiscal performance is better and development is more pronounced, there the flow of debt is large. Second, the low income states having poor fiscal performance and chequered career of development have received less debt currently compared to the past. There is a negative growth rate of outstanding debt to tatal of all states. Although low income states accounted for more than 38 per cent of total outstanding debt of all states, yet their performance on the .developmental and fiscal sides is not encouraging. Because of these facts, the flow of debt to other non-special category of states has remained palpably low.

1.4 Factors responsible for Growing burden of debt :

The Tenth Finance Commission has identified several factors for the growing debt burden of low income states including Orissa. A few of them deserve our utmost attention.

* Borrowed funds have been utilised for investment in public sector and quasi-government enterprises, where the rate of return from these enterprises remained low. In Orissa, a number of such units where investments have been made give very low return to the exchequer. Sickness and low capacity utilisation in most of these units seriously affect the yield prospects affecting debt repayment.

* States have resorted to loans in order to finance investments in social and economic infrastructures where the returns are not necessarily

direct and are characterised by considerable externalities. This is particularly true in case of Orissa.

* Utilisation of productive loans for administrative maintenance and for maintaining law and order through protection of police force, do not yield any positive return. In Orissa such expenditure accounts for 35.0 per cent of total revenue expenditure.

* Borrowing debt at a higher rate of interest and utilising at a lower rate of interest in socio-economic activities. Further whatever is lent by the State Government, the recovery of loans and interest is found to be low. It is seen that total receipts in the form of interest receipts, profits and dividends etc. constitute only 2 per cent of the total revenue receipts in Orissa.

* The low percentage share of small saving loans in the total debt is also a matter of concern for the state. It is hardly 7 to 8 per cent.

For all these, debt burden of the state appears to be very serious. That is why, the states have requested the Finance Commissions including the recent one for debt reliefs in the form of : (a) writing off the debt, (b) reduction of rate of interest on loans, (c) moratorium in repayment of loans, (d) treating small saving loans as loans in perpetuity and (e) consolidation of past loans.

1.5. Corrective Measures by Tenth Finance Commission :

After carefully going through the suggestions made by the State Governments the Commission recommends certain corrective measures.

* Debt relief is linked to fiscal performance of the State.

Each state would be considered against its performance in the past. The generalised debt relief may take the form of a certain percentage of repayment falling due in each year of the period of Commission's (i. e. 1995-2000) recommendations being written off.

* States like Orissa, Bihar and Uttar Pradesh are considered as high fiscal stress states. In these states average ratio of interest payment to revenue expenditure is exceeding 17 per cent during 1989-90 to 1993-94. For the state of Orissa it is recommended to give 5 per cent debt relief on repayment of central loans during 1995-2000.

* The Commission has also encouraged disinvestment of equity shares of state level public enterprises including cooperative institutions for the retirement of debt.

* State level undertakings like state electricity boards, State Road Transport Undertakings and other such enterprises are required to provide a higher rate of return on investment made in these units.
* The State is further required to curtail its expenditure on administrative maintenance and general services. This accounts for nearly 35 per cent of total revenue expenditure. This would help the states to channelise central loans for more productive activities.
* The Commission is not in favour of considering small saving loans to be treated as loans in perpetuity. According to the observation of the Commission, it may mean a rising burden of interest on states in perpetuity[5], on the other hand the Commission has sought the state's effort in mobilising additional small savings in order to avail more loans against these savings.
* In order to reduce the burden of repayment, the creation of an amortisation fund is suggested in respect of investments in the government sector.

1.6. Conclusion :

The debt burden of Orissa is serious. Mounting debt burden is the result of several factors like poor fiscal performance, low repayment, high interest rate burden, and use of borrowed money in unproductive sectors giving poor returns etc. Debt position, as is revealed from the available statistics indicates that the state has relied heavily upon central loans followed by internal debt and provident funds etc. The share of central loans in total debt has declined but that of internal debt and provident funds have increased. There is thus a move towards higher cost of borrowings. More serious is the fact that repayment of loans has remained low followed by high interest rate burden. A number of corrective measures have been suggested by Tenth Finance Commission, if implemented properly will help to reduce the burden of debt in the State.

Notes :

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Transfer of Resources through "Tax Sharing" Under the Tenth Finance Commission and Orissa

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In a federation alongwith the division of functions between the centre and the federating units, there is elaborate mechanism for transfer of resources trom the Centre to the States. In India, the Constitution provides for setting up of a Finance Commission once in every five years for this purpose. Till now nine Finance Commissions have already functioned. The Tenth Finance Commission (TFC) was constituted under the Chairmanship of Sri K. C. Pant, on 15th June, 1992. It submitted its report on Nov. 26, 1994.

The Constitution of India provides for broad mechanisms of transfer of resources from the Centre to the States through tax sharing. This can be brought under three categories, namely (a) obligatory and voluntarily shared taxes, (b) Assigned taxes and Agreed Taxes/Duties. We are concerned below only with the first category, which includes income tax other than corporation tax and Union Excise duties.

Vertical Devolution
Income Tax :

Under Article 270 of the Constitution it is mandatory that the proceeds from personal income tax are divisible between the Union and the States. But neither the "Surcharge" on income tax (already merged) nor corporation tax are included in the divisible pool.

There has been a spectacular growth in the yield from income tax. From Rs. 132.73 crore in 1950-51 it increased to Rs. 6788 crore in 1991-92 —a rise of 51 times in 41 years. But in the face of ever-growing expenditure, the States pleaded before the TFC for broadening and diversifying the base of income tax devolution. Orissa and some other states had contended that the receipts from "penalty" and "interest receipts", and "Surcharge" should be included in the divisible pool. The TFC recommended that "penalty" and "interest receipts" should form part of the divisible pool from 1st April, 1995. But it held that "Surcharges" should not be shared. A surcharge is imposed for meeting temporary and emergency situations. Such situations might arise in the future as well. So to meet urgent financial needs the Centre should be free to impose surcharges.

Some State Governments contended that the receipts for pre-emptive purchases of immovable properties taking place in large metropolitan cities, may be quite large and as these are in the nature of capital gains, hence should form a part of the income tax pool, for purposes of sharing. The TFC rejected this view as well.

The arguments of the State Governments for an upward revision of the share of income tax proceeds are the following.

(a) Over the years corporate income tax has proved to be more buoyant than personal income tax. But since proceeds from this tax are not divisible, the share from income tax should be raised further.

(b) With the periodic increases in the exemption limit and granting of several types of reliefs and concessions there is a shrinkage of the divisible pool.

(c) The expenditure responsibilities of the States, specially for infrastructure, have grown under a regime of economic liberalisation.

(d) Forces of economic reforms have been set in motion in the country. The ambit of tax sharing arrangement should be enlarged so as to greater certainty of resource flows to and increased flexibility in tax reform for the Centre and the States.

Through the recommendations of the Seventh, Eighth, and Ninth Finance Commissions, the share of the State in the net proceeds of income tax stood at 85 percent. Inspite of this high level, a number of States argued before the TFC to raise this share further; even to 100 percent. Orissa wanted this share to be fixed at 90 percent.

Income Tax sharing probably cannot be raised any more, without adversely affecting the Centre's initiative to properly exploit the tax. Even now, if the Central Government wishes to collect Rs. 100 crores through personal income tax, it has to raise Rs. 667 crores. The Third Finance Commission rightly pointed out "in the case of a divisible tax in which there was obligatory participation between the Union and the States, a sound maxim to adopt would be that all participating governments, more particularly the ones responsible for levy and collection should have a significant continuing interest in the yield of the tax".

The TFC, therefore, reduced the vertical share of the proceeds of income tax at 77.5 percent.

Union Excise Duties :

Under Article 272 of the Constitution, the Union excise duties are levied by the Centre and the net proceeds are shared with the States.

The First Finance Commission had recommended 40 percent of just 3 commodities to be distributed to the States. Although the States' share has been changing from one commission to another, the coverage of the sharable items become almost universal. For the period 1990-95, the Ninth Finance Commission, fixed the States' share at 45 percent, of which 7.425 percent was meant for meeting post devolution deficit of the States, on the basis of share specified by the commission. The TFC has recommended 40 percent of the net proceeds to be distributed among the States, plus 7.5 percent of the net proceeds to be distributed among the deficit States.

Horizontal Distribution :

The TFC followed the same set of criteria for the horizontal or inter se distribution of the sharable proceeds of income tax, as well as Union excise duties.

Distributive Criteria :

(a) Population :

For the distribution of shared taxes, the TFC would devolve 20 percent on the basis of population as against 25 percent awarded by the Ninth Finance Commission. As per the terms of reference, the TFC has adopted the population figures of 1971 in all cases. Accordingly, some poor and backward States, where population has increased more during the last two decades, would be entitled to get less. Population acts as an indicator of need. Earlier, greater weightage was used to be given to this criterion. But population is not a progressive criterion, as it allocates the same per capita share to a State, whether rich or poor.

(b) Distance of Per Capita Income :

The TFC gives 60 percent weight to this criterion. The Eighth and Ninth Finance Commission had given 50 percent weight to this criterion. According to this criterion, the lower income States were alloted a higher share in per capita terms. Distances are measured on the basis of a "Scaling" formula. The TFC has preferred the distance criterion to the inverse income criterion, as it felt the distance criterion results in a better graduated and more equitable distribution.

(c) Tax Effort :

Tax effort of the States which includes collection effort has been taken into consideration, in the distribution of the divisible pool. 10 percent are to be distributed on this basis. Tax effort has been measured by the ratio of per capita own tax revenue of a state, to its per capita income. Although this criterion might have some theoretical justification, it has very little practical significance. It provides for a reward for tax effort in the past, rather than an incentive for future performance. There is no assurance for the States that commissions in future will continue with this criterion. "The carrot is too small and uncertain to be of interest to the donkey".

(d) Area :

The TFC has assigned a small weight of 5 percent to "area". The TFC while considering area as a distributive criterion has made certain adjustments at the upper and lower ends. Thus the State gets more than 10 percent at the upper end and less than 2 percent at the lower end.

(e) Infrastructure :

The Ninth Finance Commission had used an index of poverty and an index of backwardness, for imparting greater progressivity to the devolution scheme. The TFC has made an index of infrastructure based on economic and social infrastructure available to the citizens. 5 percent is to be distributed on this basis. A State lower on the infrastructure scale gets higher share and vice-versa. Among the major States Orissa ranks third with 74.46 on the infrastructure scale.

(f) Deficit Criterion :

Only union excise duties would be covered by this criterion. 7.5 % out of 47.5% of union excise duties assigned to the States would be received by the States assessed deficit by the TFC. Orissa's share in 7.5% net proceeds of excise duties would be 4.8, 5.2, 4.9, 2.7 and 0.68 percent each year between 1995-96 to 1999-2000 respectively.

The Case of Orissa :

Despite four and a half decades of planning, Orissa continues to be one of the poorest States—with a backward agriculture and industry. According to the GOI Economic Survey for 1994-95, when the country is going through agricultural prosperity, Orissa has failed to make any noticeable progress. Per capita value added by manufacture was Rs. 289 against the all-India average of Rs. 429 in 1988-89.

Except that of Bihar, Orissa's per capita income at Rs. 1615 is the lowest in the country, as against the all-india average of Rs. 2239. In Orissa, the percentage of people below the poverty line was the highest in the Indian Union, being 44.7 percent, against the national average of 29.9 percent in 1987-88. Besides, the State is visited by natural calamities by ways of floods, droughts and cyclones.

The horizontal distribution of resources, as suggested by the TFC does not give due consideration to poverty and under development of the States. Hence Orissa or the other poorer States do not receive any better deal. Some experts of course hold that economic development does not come under the purview of the Finance Commission. According to P. V. Rajeev, Dy. Adviser, Planning Commission, the pattern of resource devolution evolved by the TFC is not significantly different from that evolved by the Ninth Finance Commission. The total transfer of resources to the States is highly correlated with the States' SDP during both the periods. The TFC has also reduced the distributable share of income tax to 77.5 percent, as against the earlier limit of 85 percent. The TFC has not considered the issue of evasion of sharable taxes. There is large scale evasion of income taxes as well as excise duties. Recently ITC has been fined a hefty Rs. 799 crores for evading excise. This large scale evasion has serisously affected the total volume of revenues which could have gone to the States.

Certain Suggestions :

In a federation, constitutionally two independent systems operate. For a healthy and satisfying relationship between the Centre and the States, the allocation of resources must be made on sound principles. Today the States have dynamic and expanding functions, but they are deprived of productive and elastic sources of revenue. Due to lack of sufficient resources the developmental expenditure of the State Governments increased only by 3.9 percent in 1992-93 and 6.8 percent in the budget of 1993-94. The States are increasingly burdened with debt. Devices have to be found so that income of each State would match with its needs. After initiating necessary tax reforms, once the Central VAT and the State VAT in place of sales tax are introduced, the tendency towards centralisation may further accentuate.

The TFC also felt that the amount of resources devolved through the present tax sharing is not adequate. The TFC therefore has proposed an alternative devolution scheme, whereby to include some taxes in the common central pool meant for distribution among States. The States would be entitled to 29 percent of these proceeds. However, this proposal has not been accepted by the Government.

The divisible pool for vertical devolution can be increased, by including corporation tax within it. If personal income tax is divisible, the States vehemently argue that why the income of the companies should be left aside. The corporation tax is highly elastic. In India, the yield from corporation tax increased .spectacularly during the last 40 years. From a mere Rs. 40.40 crores in 1950-51 the tax yielded Rs. 6788 crores in 1991-92—a rise of 169 times—contributing about 15 percent to centre's tax gross revenue.

In other federations like Australia, Canada and the U. S. A., the States enjoy the right of corporation tax. The Expert Committee on Financial Provisions of the Union Constitution had recommended that the provinces should not get less than 60 percent of the net proceeds of all income tax, including the corporation tax and taxes on Federal Emoluments.

The States should practise a more vigorous fiscal discipline. On the one hand it.implies that the unnecessary and wasteful expenditures must be curbed. Expenditure, on revenue account be controlled and contained within revenue receipts. Every item of expenditure should be reviewed every year. Overstaffing should be avoided.

Another aspect of fiscal discipline implies that the States should fully and optimally exploit their tax and non-tax resources. The States should tap certain untapped sources, 'like the agricultural sector, as well. In India, the share of land revenue in the total State tax revenue has gone down from 25.9 percent in 1951-52 to only 1.8 .percent in 1991-92. The share of agricultural income tax has been negligible. Its share has come down from 2 percent to 0.3 percent during the same period. Although almost all committees and commissions have argued in favour of exploiting agricultural income tax, due to political compulsions, the States have paid no heed to these suggestions.

The growth and stability of the fiscal system and cordial Centre State financial relations depend on harmonisation and rationalisation of the tax system. The Chelliah Committee has rightly suggested for a tax system which is wide-spread, simple with moderate rates of tax and at the same time promotes economic efficiency, growth and equity.

The Finance Commission at present is a quinquennial body. But the average duration of the Finance Commissions has been about 14 months from the First to the Sixth Commission. It also lacks the benefit of a whole time personnel. Hence under the rapidly changing economic, social and Political Scenario the finance Commissions have failed to do proper justice to their assigned task of revenue devolution on a rational basis. Federal assistance is becoming discretionary in nature. It is high-time, a permanent finance commission is established to handle federal fiscal transfers and federal loans to States.

Award of The Tenth Finance Commission : Some Comments

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Introduction :

In the Indian Federation while important & growin expenditure responsibilities are assigned to the state governments, the major revenue sources are allocated to the central government, creating what is generally called 'vertical fiscal imbalance'. At the same time, with large economic disparities among the states, there is variations of the capacity to raise resources for financing standard level of public services, creating what may be called 'horizontal fiscal imbalance'. The horizontal fiscal imbalance can be measured by the gap between expenditure needs and revenue capacities of the states. This measure takes into account both the inequity—the lower revenue capacity and higher unit costs (Rao, 1990). The rationale for the creation of Finance Commissions under the Indian constitution is to redress the vertical and horizontal fiscal imbalances inherent in the distribution of powers and functions between the centre and the states and the disparate levels of income and development across states.

So far ten Finance Commissions have been appointed in India to redress the fiscal disadvantages of the states both in the vertical and horizontal sense as mentioned above. The trend and magnitude of fiscal imbalance shows that the past Finance Commissions have been unable to offset the fiscal disadvantages of the states. The states (in aggregate) have been facing deficit in revenue account since the award of the Eighth Finance Commission. The economic disparities among the states have also been increasing. This shows that the objective of redressing the vertical and horizontal imbalance and restoring fiscal health of the economy through fiscal transfers has not been achieved. The purpose of the present study is to analyse the manner in which Tenth Finance Commission (TFC) addresses the task of redressing fiscal disadvantages of the states and to see whether it has succeeded in achieving this task.

Approach of the Commission :

While the guidelines attempt to restrict the scope of the TFC to assess the needs of the states on non-plan revenue account, the requirement to keep in view the need to generate revenue surpluses and to reduce fiscal deficits makes it necessary for the commission to scrutinise the total revenue and capital budgets of the centre and the states. With this conflicting objective, the TFC would have at least considered the entire revenue account so as to phasing out revenue deficits. But the TFC has confined only to the non-plan revenue account and envisaged that a reduction in fiscal deficit has to come about through improvements in the revenue account balance emanating from the non-plan revenue account. Even if the improvement in non-plan revenue account is made surplus in this account there is no guarantee that it would exceed the plan revenue deficit.

Though the terms of reference of the TFC do not explicitly suggest the adoption of a normative approach, TFC could have tried to assess the revenue gap of the states normatively, by looking at the tax bases available with them and estimating what could be raised by making average effort in the case of individual taxes levied by most states. But the TFC has almost disavowing faith in the normative approach. However, it does not mean that the Commission has not followed any norms. It has followed some norms while assessing the revenue requirements of both levels of governments. It has used the buoyancy model while projecting tax revenues of the centre and states. The buoyancy of individual taxes has been estimated by regressing tax revenue on nominal income. For purposes of making projections, the buoyancy coefficient is applied to the rate of growth of income and the rate of growth of tax revenue is estimated. This is applied to the base year figure to get the projected tax yield in a given year. By using the regression based approach the TFC has used the capacity factor indirectly. The Ninth Finance Commission (NFC), on the other hand, had used the Representative Tax System (RTS) approach, which makes the direct use of the potential bases (or its proxy) in explaining inter-state variation in tax effort. The TFC could have tried to improve the norm NFC had attempted instead of forsaking that path without convincing reasons (Bagchi, 1995). Hence, the TFC has gone step behind in using the scientific technique to assess the revenue gap of the states.

The TFC has attempted to get rid of the shackles of the 'base year' by taking the growth rates of the actual tax revenue instead of budget estimates. Though there is wide variations between the budget estimates and the actuals of earlier years, the adoption of trend growth rates to arrive at the base year cannot go without criticism. If the trend rate of arriving at the base year is accepted then it becomes indifferent from the projection of revenue using trend rate as was the practice of earlier Commissions for assessing tax revenue and expenditure.

Vertical Tax Devolution :

The TFC has been stingy in respect of vertical tax shares. The share of states in the proceeds of income tax has reduced from 85% prevailing since the Seventh Finance Commission to 77.5% for the period 1995-2000 in order to enhance interest of the centre to levy and/or collect more income tax. On the other hand, the share of excise duties has remained unchanged (with the seventh and eighth Finance Commissions), except for increasing the earmarking share to the deficit states.

The reservation for the deficit states may be justified, however, it is against the spirit of Article 272 of the Constitution and does not create incentives for better tax effort of deficit states. By assigning a portion of the proceeds of Union Excise Duties (UED) to net deficit states, the status of Union excise is reduced to the status of grants-in-aid of revenue. However, the status of UES is only comparable to the status of taxes on income under Article 270 of the Constitution. The only difference between Article 270 and Article 272 is that while the former is compulsorily shared by the states, the latter is shared at the discretion of the Parliament. Once the Parliament agrees to share the proceeds with the states there remains no difference in the nature of taxes under Article 270 and Article 272.

The acceptance of the present splitting of divisible pool of excise duties into two parts, one for all the states and the other for revenue deficit states, would be unable to prevent the future Finance Commissions : (i) to increase the share in the net proceeds of excise duties to the deficit states to even higher percentage as the trend shows, (ii) to split the divisible pool further into more than two portions so that different amount can be set aside for different types of states, and (iii) to split the divisible pool of income tax also on similar grounds, as there is no difference between the two.

Criteria for Inter-se Distribution :

The TFC has departed from its predecessor in distributing the tax shares among the states in the respect that it has adopted identical criteria for inter-se distribution of the shares of income tax and excise duties. In the process, it has eliminated collection as a factor in income tax share. The common criteria for inter-se distribution adopted by the TFC are that

(i) 20% on the basis of population of 1971 census,

(ii) 60% on the basis of adjusted distance criterion based on per capita income of states weighted by population of 1971 census,

(iii) 10% on the basis of tax effort,

(iv) 5% on the basis of area, and

(v) 5% on the basis of infrastructure.

The adoption of these criteria shows that while population and distance criteria together account for 80% in horizontal sharing, other three criteria have been added as tail-pieces to fill the balance 20%. Though share of population has shown as 20 per cent, it has in fact held a predominant place in the devolution formulae. The distance criterion becomes a representative index of population when multiplied by the state population. Therefore, there is no need of taking population as a separate criterion for devolution. Moreover, there is a practice of using 1971 census population in the devolution formulae perhaps with the intension of punishing the fast breeding states. But this is not the way a Finance Commission should follow. Its task should be to see how the states would be able to provide an average standard of public services to its people. It can be said that a state having higher rural population has to bear higher cost of public services so as to arrive at a standard level of public services. Hence, the current rural population of the states should have been used by the TFC in its devolution formulae if it had to bring more horizontal equity, as it would have benefited all the low income states in the non-specific category.

Filling the Revenue Gap :

TFC has recommended statutary grants under Article 275 to fill the gap of the states which had revenue deficit in the non-plan accounts even after the devolution of shareable taxes. In this sense, it has not departed from the gap filling approach. This is because it has adhered to the buoyancy estimates instead of estimating the tax potential of the states. By doing this TFC has not taken account the potential for additional taxes of the states. The result is that more states come under the post-devolution deficit category. It is not surprising that Andhra Pradesh, a middle income state, has come under this category and has got higher deficit grants (more than 20 times than Rajasthan) compared to the low income states.

The Case of Orissa :

The experience of the last four decades shows that for all the sophistication in the devolution formulae used by the Finance Commissions, the tranfers have resulted in providing the relatively better placed states with surpluses for development expenditures on a much larger scale than those who need the funds more (Bagchi, 1995). It is, therefore, not surprising that Orissa, a poorer state, has fiscal disadvantage even after the four decades of planned transfer of revenue from the centre. Orissa has remained as a post-devolution deficit states in the awards of most of the Commissions. The award .of TFC is not an exception to this. Its unrealistic method of assessing revenue gap and improper devolution criteria aggravate the fiscal disadvantage of Orissa.

Orissa has got a share of Rs. 9706.55 crore, accounting about 4.28 per cent of the total transfers to all states in the award of the TFC as compared to the share during the award of NFC (5.21%) as can be seen from the following table.

Tax Devolution, Grants and Total Shares Recommended by NFC and TFC to Orissa

(Rs. in crores)

Items of transfer	TFC	NFC	Direction of Change in Percentage share of TFC
Income Tax	2821.29 (4.495)	905.21 (4.326)	Increase
Excise Duty	5260.99 (4.323)	2972.03 (5.358)	Decrease
Non-plan Grant	371.74 (4.902)	528.48 (8.784)	Decrease
Total Grants	923.14 (4.547)	1082.98 (7.212)	Decrease
Total Transfers	9706.55 (4.283)	5523.04 (5.209)	Decrease

Note : - Figures in the brackets are percentage shares.

Orissa has got reduced share in all the major heads of devolution (except income tax) recommended by TFC as compared to the devolution recoommended by the NFC. The per capita non-plan revenue surplus of

Orissa for the total period as recommended by TFC (Rs. 0.82) has been significantly lower compared to that of the NFC (Rs. 172.54). The disparities in the per capita revenue surplus (where Orissa has got lowest per capita revenue surplus) have also widened under the TFC's award than ever before. Had the TFC used the NFC's formula Orissa would have benefited much more than what it has got under the new formula adopted by the TFC. This can be seen from the following table.

Tax Devolution, Grants and Total Transfers to Orissa recommended by TFC compared with the award using NFC formula

(Rs. in crore)

Item of Transfer	TFC	TFC by NFC formula	Difference
Tax Devolution	8783 (2711)	10012 (3090)	−1229 (−379)
Grants	923 (285)	1497 (462)	−574 (−177)
Total Transfer	9707 (2996)	11419 (3524)	−1712 (−528)

Note : - Figures in the brackets are Rs. in per capita

Source : A. Bagchi, Tenets of Tenth Finance Commission— A critique, *EPW*, Aug. 5-12, 1995, p. 1989.

Conclusion :

The devolution of revenues recommended by the TFC seems to provide inequitable and inefficient revenue sharing. The Key to equity and efficiency in the recommendation of a Finance Commission lies in the nermative approach. TFC, instead, has used the gap filling approach and while assessing the revenue capacity of the states it has not looked at the tax base available with them. So the projection of revenue by the TFC turns out to be unrealistic and hence, the recommendation on this basis seems to be inequitable and .inefficient. What ever sophistication be used in the revenue sharing formulae, equitable distribution of revenues among the states cannot be found unless the revenue needs and capacities of the states are projected efficiently. Hence, the alternative scheme of devolution suggested by the TFC would not be of any help to the states in redressing horizontal imbalance unless a realistic approach is adopted for projecting revenue needs and capacities.

To conclude, though the difficult fiscal situation of the centre forces the TFC to be stingy in recommending the vertical shares to the states, the Commission could have tried to redress the horizontal imbalance by adopting a realistic approach. The result is that better placed states are provided with surpluses on a larger scale than those who need more funds. Hence, regional imbalances persist in the TFC's recommendation and a poor state like Orissa has to suffer.

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Tenth Finance Commission And Orissa

(Relevance of the "Alternative Scheme" Proposed by Tenth Finance Commission to Orissa)

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Introduction :

India like all other federations of the world, such as USA, Australia, Canada and Switzerland faces two important fiscal problems or fiscal disequilibriums. The first disequilibrium arises out of the allocation of resources between the Central and State Govts. and the Second disequilibrium out of the imbalance existing among different regions of India. In other words, Indian federation faces two major problems, such as, problem of non-correspondence of resources between the centre & states and problem of regional economic imbalance. The problem of "non-correspondence" crops up as the Central Government has been assigned with a larger amplitude of financial resources whereas the States have comparatively low and inadequate sources of revenue in comparison to the manifold responsibilities performed by them. On the other hand the regional imbalance is found as percapita income of some states like Punjab, Haryana, Gujarat, Maharashtra, West Bengal and Tamil Nadu are far higher than the All India average percapita income whereas the percapita income of some other states like Orissa, Bihar, U. P., Rajasthan, Kerala, Jammu & Kashmir and Madhya Pradesh is much lower than the all India average. Realising the gravity of these problems, the Constitution of India makes some provisions to facilitate necessary transfer of resources from the Union to the States to bring about better correspondence between resources and responsibilities between the Centre and the States. The resources are to be transferred from the Union to the States in the shape of tax sharing (Article-268, 269, 270 and 272), grants (Article-275) and loans (Article-293).

The Finance Commission has been set up to study, analyse and determine resource needs of different states and to allocate resources so as to meet their deficits.

Historical Background :

The First Finance Commission gave importance to the objective of lessening in equalities between States while determining distribution of resources. This objective continued till the Fourth Finance Commission highlighting the objective of bringing the comparatively backward states to a particular minimum level to reduce the existing disparities among states. Thus the objective of education in regional disparities continues which in turn would improve the economic standard of the weaker sections of the people, and also improve the economic position of backward states.

If the revenue position of the States of the previous years is analysed to study the fiscal position of the centre and States, it is found that the Sixth Finance Commission (1974-75) had been able to bring about surplus in revenue accounts of both the centre and the states. The 7th Commission (1979-84) advised for a huge transfer of resources to the States resulting in deficit in the revenue account of the centre and surplus in the revenue account of the States. However deficits at the Centre and also at the States gradually worsened over years (up to 1995) as shown in Table - 1.

TABLE—1

Revenue Deficits in the Centre and the States, 1974-1995

(Rs. in Crores)

Period		Centre	States	Total
1974-79	Annual Average	+ 534	+ 926	+1460
1979-84	Annual Average	−1449	+1102	− 347
1984-89	Annual Average	−7508	− 599	−8107
1989-90		- 11912	−3682	−15594
1990-95	Annual Average	- 24085	- 6016	−30101

Source : E. & P. W., April, 22, 1995.

Although the gross fiscal deficit in the central budget got reduced during 1991-92 and 1992-93 it got out of control again in 1993-94. The fiscal deficit of the year 1993-94 reached 7.5% of G.D.P. and the revenue deficit got raised to 4.1%. In other words revenue deficit has been a persistent factor aggravating fiscal deficit at both States and National levels and the only way to reduce the revenue deficit is to curtail current non-plan expenditure and non-developmental expenditure. The Tenth Finance Commission was set to frame schemes for 1995 to 2000 under this background.

Tenth Finance Commission (TFC), 1995-2000 :

The T.F.C. started with a view to achieving certain objectives like :

(i) Projection of revenue and expenditure at state levels and centre level to bridge the gap between the Centre's capacity and the States' need.

(ii) Finding out the basis for vertical sharing of the shareable taxes between the two levels.

(iii) Determination of the formula for horizontal sharing of the devolution amount between States and determination of specific gap grants to to the states which would remain stable even at the time of deficit.

(iv) Distribution of additional excise duties in lieu of Sales Taxes, Grants in lieu of the repealed tax on railway passenger fares, grants for upgradation of certain services in the States, grants for calamity relief, grants for local bodies and a scheme for debt relief.

The TFC has also introduced "Alternative Scheme of Devolution" which would provide long-term reforms in Centre and State fiscal transfers. This recommendation of the TFC (Tenth Finance Commission) has become a matter of debate. Generally shared taxes in India are of three types, such as (a) shared taxes like income tax and Union excise duties which are levied by the Central Government but the net proceeds of which the centre is required both by the Constitution and the law of Parliament to share with the States, (b) assigned taxes including seven different taxes of varying importance like estate duty on property tax other than agricultural land and taxes on railway fares and (c) agreed taxes like additional Union excise duties on mill-made textiles like cotton fabrics, rayon or artificial silk fabrics, woolen fabrics etc., sugar, tobacco, manufactured tobacco in place of States' sales tax and estate duty on agricultural land. Statewise tax devolution, grants and total transfers made by TFC are shown in Table-2.

Now it has become necessary to see whether the basis of allotting shares from the divisible pool among the States is just and equitableand to examine whether Orissa as a backward state has been benefited by this new arrangement.

In this context the vertical shares as recommended by previous commissions are necessary to be studied and compared. Table-3 gives such comparisons.

TABLE—3

Shares of States in the Sharable Taxes (%).

Finance Commission	Income Tax	Basic Excise Duties
1st FC (1952-57)	55	40
2nd FC (1957-62)	60	25
3rd FC (1962-66)	66.67	20
4th FC (1966-69)	75	20
5th FC (1969-74)	75	20
6th FC (1974-79)	80	20
7th FC (1979-84)	85	40
8th FC (1984-89)	85	45
9th FC (1989-90)	85	45
9th FC (1990-95)	85	45
10th FC (1995-2000)	77.5	47.5

Source : E. & P. Weekly 22 April, 1995.

It seems that the share out of income tax, though had raised to 85% & remained constant at that level since the 7th Finance Commission has been reduced in the 10th F.C. However, the share out of basic excise duties has risen to 47.5% in the 10th F.C. although it had remained constant at 45% in the 8th and 9th Finance Commissions. Thus the Tenth Finance Commission has brought about some changes in the allocation of resources to the State.

(iv) Relevance of the Alternative Scheme to Orissa :

The "Alternative Scheme" given by the TFC has some important features such as;

(i) instead of allocating specified shares of the centre's revenue only out of income tax and excise duties, the states should be allocated a share of the aggregated pool comprising the gross tax revenue of the centre.

(ii) The share of the states should be fixed at 26%.

(iii) This will also cover the grant-in-lieu of tax on railway passenger fares.

(iv) An additional 3% be allocated to the States in lieu of the additiona excise duties the centre is currently obliged to levy in lieu of the sales tax on three commodities that the stages have agreed not to impose tax according to a tax rental arrangement.

(v) While the states will be precluded from levying sales tax on these three commodities, the centre will merge the current additional excise duties with the basic excise duties.

(vi) Taxes listed in Articles 268 and 269 of the constitution other than central sales tax and conssignment tax shall form part of the proposed central pool.

(vii) Surcharges imposed by the centre for the purposes of the Union will however not form part of the central pool.

(viii) The proposed ratios of 26% and 3% on the basis of which the state's allocation will be determined out of the central pool shall be reviewed after 15 years.

(ix) The horizontal distribution out of the central pool and the various grants (except grant-in-lieu of tax on railway passenger fares, will follow TFC's recommendation and subsequent FCs.

The TFC while determining the principle of pooling has not supported the existing system of states' sharing revenues only from a few specified central taxes. Instead, it has recommended to pool the total tax revenues of the centre for this purpose. The TFC argues that such pooling system would enable the states to share the aggregate buoyancy of central taxes and at the same time it will reduce the burden of the centre in sharing tax revenues with the States. The most important point arises here is whether pooling of all central taxes for purposes of sharing with the states will really improve the centre's incentive to mobilise aggregate tax revenue or it will simply distribute the disincentive evenly over the various central taxes. Again by suggesting that 29% of the centre's tax revenue should be shared, the TFC has only followed the path used earlier.

It is a fact that till the end of 1970s only 32% (approx) of the centre's gross revenue used to devolve on the states. The states' share had risen remarkably from 1979-80 onwards. The revenue deficit in the budget of the centre had become large and chronic after the 7th FC raised the proportion of union excises for sharing from 20% to 40%. Hence now the question automatically arises whether the centre's finances would be able to bear sharing of revenue raised by this extent without impairing the capacity of the centre in discharging its constitutional responsibilities.

The Central Government has made it clear to the TFC in its menorandum that in order to raise Rs. 100 crore for itself through excise duties it would have to raise Rs. 182 crore as 45% of any increase in the yield will accrue to the States. The Centre may be able to collect the required amount under pooling arrangement suggested by the "Alternative scheme". Yet the centre cannot further take any other advantage either from excise duties, corporation tax or custom duties unless it opts for raising additional revenue through the surcharges imposed for the purposes of the Union which is beyond the pooling system suggested by the TFC.

The only alternative available to the proposed pooling of central taxes is to transfer some of the taxes on states' list to the Union. But the TFC has pointed out that the weak points of Indian tax system is heavy dependence on indirect taxes and heavy emphasis on union excises and sales taxes. Any increase in these taxes will adversely affect trade and commerce.

Ratio Criterion :

TFC has formulated ratio on the basic of the amount accrued to the states in the form of shares of central revenue from income tax, basic excise duties and grants-in-lieu of tax on railway passenger fares along-with the share of additional excise duties. The average shares worked out during the quinquennium, 1990-95 are 24.31% for the former and 2.95% for the latter. With this background the Commission has proposed to make 29% of aggregate central tax revenues shareable with the states in terms of a constitutional amendment and this proportion should be reviewed in every 15 years.

The figure of 29% has been arrived at as follows:

(a) Shares in income taxes, basic excise duties and the grant in lieu of the tax on railway passenger fares have together amounted to about 24% of aggregate central tax receipts during 1979-95.

(b) Including the potential from taxes envisaged in Article-268 and 269, it will be reasonable to mark up this proportion to 26%; and

(c) Additional excise duties have amounted to about 3% of aggregate central taxes during 1979-95.

It is felt that in the current arrangement of transfer of resources from the centre to the states the fixation of ratio for the states at 29% may create a stagnant position in the centre-state fiscal relation. The states under this new arrangement may continue to depend for a major part of central transfering on channels other than the Finance Commissioner.

As per the information given by the TFC in 1994-95 (budget estimates) out of the total revenue account transferring from the centre to the states of Rs. 47,000/-. crore nearly 48% was in the form of grants, four-fifths of which were outside the statutory frame work comprising mostly central assistanace for state plans and assistance for central and the centrally sponsored schemes.

The Finance Commission and other central agencies play an important role in the redistribution of resources among states. But it will be hampered if domestic trade taxation is completely shifted to the states. Therefore it is necessary to find out an arrangement where the States could enjoy more adequate taxing powers, powers to carry out their responsibilities under the consitution and yet a proper redistributive mechanism could be devised.

Additional Excise duties :

Addition of additional excise duties in the central pool as proposed by the TFC is not very simple. The additional excise duties are levied by the centre under an arrangemant agreed upon with the states whereby the states surrendered their constitutional right to levy Sales tax on Sugar, tobacco and textiles. The allocation of 3% of resources raised by this method among the states as proposed by the TFC seems reasonable. The question now arises whether states themselves could not raise higher revenue from levying sales taxes on these three commodities if they were empowered to do so. Some states have also shown interest for the right to impose sales tax on these three items. In other words as states levy sales tax on several items, they can also manage to levy and collect taxes on these three items. In fact if the suggestion of transferring the entire domestic trade taxes to the states is accepted then this problem of transferring three items will not arise.

It has been mentioned in the proposal to merge the additional excise duties with the basic excise duties. But no specification has been given about inter-state distribution of the 3% of the central pool.

Surcharges :

Although states claim that the centre is depriving them of the share from the revenue raised through surcharges, the TFC has allowed the centre to continue to have the power to levy surcharge for the purpose of the Union by excluding surcharges from the sharing arrangements.

15 Yearly Reviews :

TFC has recommended that states' share out of the proposed central pool should remain fixed at 29% for a period of 15 years and thereafter it will be reviewed. But the TFC has not given any principle of revenue equivalence for 15 yearly reviews.

Inter-State Trade :

The TFC has excluded Central sales tax and consignment tax from the pooling arrangement system.

It is necessary to examine if Orissa as a back-ward State gets benefited by the "Alternative Scheme" proposed by the TFC.

The flow of the shared taxes shows an increasing trend over years. On the other hand analysis of % of the resources transferred from the centre to total revenue receipts of Orissa shows that it has declined in the year 1995-96. Although this % has increased to 60.5 in 1994-95 (R. E) from 59.6 of the year 1986-87, it has declined to 56.9 % in the year 1995-96 (B. E).

Resources Transferred from Centre (Rs. in crore)

Year	Shared Taxes	Grants & other contributions	Total	% to Revenue Receipts	Index of growth
1986-87	414.4	317.7	732.1	59.6	100
1987-88	402.2	368.1	790.3	59.3	108
1988-89	428.7	486.2	914.9	59.0	125
1989-90	572.6	444.7	1,017.3	58.4	139
1990-91	694.1	606.9	1,301.0	59.9	178
1991-92	830.5	683.3	1,513.8	61.9	207
1992-93	994.9	768.2	1,763.1	60.5	241
1993-94	1,067.8	864.6	1.932.4	60.2	264
1994-95 RE	1,233.1	1,230.6	2,463.7	60.5	337
1995-96 BE	1,296.1	1,053.0	2,349.1	56.9	321

Source—Orissa Budget in brief, 1995-96 DES, Orissa.

It is highly relevant to mention that in 1994-95 (Estimates) 27.70% of Centre's Gross Tax Revenue have been diverted for tax devolution to states. As per this devolution the revised estimate of resources transferred from the centre to Orissa shows that during 1994-95 devolution of 27.70% of the Centre's Gross-Tax Revenue supplies only 60.5% of the total revenue receipts of the state in that year. In such circumstances it is obvious that 29% of share of tax might not be able to fulfil the rising necessity of the State.

In fact it is not easy to fill up the vertical gap or to naturalise the vertical imbalances. It is because even if the revenue and requirements of the different govts. are assessed normatively, surpluses so made may not be sufficient to meet the needs of the states. Hence the Central Government should make a thorough study of the "Alternative Scheme" recommended by the TFC before taking any decision at least for the benefit of the poor states.

The Tenth Finance Commission and Orissa

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Of the many problems which a federal state faces, resource sharing always remains a challenging task. Since Central Governments have clear edge over the unit governments in matters of financial resources, mechanism is created to effect transfer of resources from the Central Government to the federal unit governments.

In the Indian federal system there are three different channels through which resources flow to the unit governments. They are (1) the Finance Commission; (2) the Planning Commission and (3) the Central Ministries including the autonomous bodies like UGC, CSIR, ICAR etc. Each of these agencies tries to develop different public services across the states in order to bring horizontal and vertical equity and all other objectives of public finance like efficiency, stabilty and growth of the economy.

The scope of this paper is to highlight the repercussion of the awards of the 10th Finance Commission on Orissa. This will be examined against the backdrop of the recommendations and approaches of the preceding Commissions. The Indian Constitution provides for the appointment of a Finance Commission every five years by the President to decide the (1) share of the taxes and (2) quantum of grants-in-aid of revenue under Article 275 (1). While recommending the assistance under Art. 275 (1) it is necessary to determining the "need of assistance" "different sums may be fixed for different states". This clearly speaks of achieving horizontal equality in the resource flow mechanism. The assessment of the "need of assistance" has led to intense debate among the experts and the members of the Finance Commission. Most of the Finance Commissions viewed that the need of a particular state is nothing but difference between its expected expenditure minus expected revenue. This expected expenditure and revenue are to be calculated by projecting the current and past expenditures for the award period. The First Finance Commission took into consideration the strength of the centre in bearing the burden of transfer; uniform applicability of the principle of distribution and reduction of inequalities among the states. It has explicitly maintained that equalising standards of social services are one of its yardsticks in determining the quantum of grants-in-aid. The Second FC while recognising the need to reduce inequalities in the standards of basic social services opined that 'it is the function of

* The authori s highly indebted to Prof. Bibekananda Das for his comments on the paper.

the Planning Commission and the National Development Council'. The Third Finance Commission appreciated the fact that two sides of fiscal need i.e. tax effort and economy expenditure are extremely difficult to compute as they depend on tax potential and expenditure requirement of a state which vary from state to state. However, it entered into the equity area when it recommended special purpose grants for development of communication. It pointed out the 'pressing need to open up backward areas, to break down barriers of isolation and stagnation, to develop social services and above all to bring about a feeling of oneness in the minds of the people of these regions with the rest of the community.

The Government of India accepted the recommendation while allocating resources to the states. This Commission while formulating the principle of distributing the share of Union excise duty found it justified to include the criteria of relative financial weaknesses of the States, the disparity in the levels of development reached, the percentage of SC/ST and backward population to achieve a comparable level of financial balance.

The Fourth Finance Commission endorsed the view of the Third Finance Commission in giving 20% weightage to backwardness in sharing the Union excise duty but observed that it should not be financial backwardness but economic and social backwardness. The Fifth Finance Commission has taken a bold stand on equity aspect when it pronounced that, 'the need for equalisation demands a more positive redistributive policy'. This Commission recommended that the share of union excise duty be made 80% on the basis of population and the rest on the basis of distance from average per capita income and an integrated index of backwardness. The Sixth, Seventh and Eighth Finance Commissions continued to follow the footsteps of the earlier Commissions as regards equity. Moreover, they have started from the Sixth Finance Commission to allocate a special purpose grant for upgradation of administrative services which according to them has the objective of giving minimum administrative infrastructure throughout the country. From the period of 8th Finance Commission, a portion of Union Excise duty was reserved to be distributed among the states who had revenue deficit after devolution of shared taxes.

One of the most important and significant steps taken for reducing horizontal imbalance is the adoption of 'normative approach' by the Ninth Finance Commission relegating the so called 'gap filling approach' to the background. The terms of reference of the Ninth Finance Commission specifically asked to proceed in this direction. One of the basic considerations for adopting a normative approach is to ensure that 'the distribution of revenues among the states should be equitable so that every state is enabled over time to provide a specified minimum standard of basic public services. The final report of the Ninth Finance Commission also maintained the same formula by indicating that minimising the vertical and horizontal imbalance is a basic purpose in all federal transfers. The idea of equity reflected in many items of devolution carried out by the Ninth Finance Commission. Attempt was made to include economic backwardness as one of the criteria in the apportionment of income tax, union excise duties, grants-in-aid etc. The Commission on Centre-State Relations popularly known as Sarkaria Commission while examining the problem of backward areas particularly in backward states advised that, 'both the Finance Commission and the Planning Commission will have to take concerted action in devolving adequate resources to the less developed States. The Commission underlined that one of the very important deficiencies in the present devolution of Finance Commissions was that while for more developed states, it leaves with a revenue surplus, for the less developed states it is leaving either a slender or zero surplus. This needs to be recognised and corrected in the 'over-all interest of the nation'.

Approach of the Tenth Finance Commission :

A significant aspect of the terms of the Tenth FC is the objective of not only balancing the receipts and expenditure on revenue account of both the states and the Central government, but also generating surplus for capital investment and reducing fiscal deficit. The implication is obviously to augment resources for planned development of States. But if one goes through the entire 10th Finance Commission report one will definitely conclude that the Commission has miserably failed on both the fronts. The logic of the Commission is that, "we have chosen not to do either (surplus with Centre or surplus with the States) because in doing so we would be just shifting the deficits while our aim was to arrive at a sustainable and healthy fiscal balance". The Commission has escaped the calculation of revenue component of the plan (which is possible if the Commission desires so by projecting the past revenue component of the Plan expenditure) by narrating that it is not within their terms of .reference. Regarding equity objective in the federation, the Commission has taken a diluted stand. The presumption that equity and efficiency are not mutually exclusive and they are blended to achieve horizontal distribution, which appears to be an utterly meaningless proposition. For any lay man in Public Finance both these concepts are acting in opposite directions and blending the two implies negation of distributive justice in resource allocation. The bias of the Tenth Finance Commission is clear when one goes through Chapter-XV of the report entitled as 'General Observations' in which not a single word has found a place regarding regional disparity. The adoption of 'normative approach by the Ninth Finance Commission, which has made a very good beginning in reduced disparity has been rejected by this commission on the ground that it is not in its terms of reference. The Commission has not thought it fit to examine the advantages of this approach over the previous 'gap filling approach'.

Another significant depature of the Tenth Finance Commission is to eliminate the inverse income criteria from the distribution of shares out of union excise duty on the ground that 'the middle income states have to bear a relatively higher burden' at the cost of both developed and backward state. It appears that it had no hesitation to cut throat of the backward States to help the middle income states. Significantly the Commission does not think it fit to arrive at a composite index of backwardness which has been in practice since the Third Finance Commission. Instead, it has given only 5% weightage to index of infrastructure which is favourable to backward states while 10% on the basis of tax effort which is against the interest of backward states. 5% weightage was given to 'area' which appears to be not a significant variable worthy of consideration by any Finance Commission.

Orissa and the Tenth Finance Commission :

The implication of the Tenth Finance Commission awards with regard to Orissa, a backward State in the Indian federation can be seen now. The Government of Orissa had presented a memorandum to the Finance Commission to fill the revenue deficit before tax devolution. Though it appears to be 'ideal' from her own point of view, situation is not conducive to get support from other States as this meant large scale sacrifice on the part of the developed States. What would have been more acceptable to both the category States and to the Centre to press for leaving all the States at a uniform level of revenue surplus as is indicated for in the terms of reference of the Tenth Finance Commission. For the purpose of analysing the position of Orissa we have to examine the share of resources Orissa is getting since the First Finance Commission till now. For getting a right picture, we have excluded the Special Category States out of our analysis. We have classified the States into advanced, middle income and backward as done by the Sarkaria Commission. Before proceeding to look at the aggregate figures it is beneficial to examine the share of Orissa out of three prominent resource flow channels.

Table - 1 reflects the position of Orissa with regard to share of incom tax. It is clear from the table that the share of advanced States has gone down from around 31% to 27%. The share of middle income states has gone up by 1% as compared to the share given by the 8th and 9th Finance Commissions. The share of backward states has gone up by 3% and in case of Orissa there is marginal increase from 4.33% to 4.50%.

Table - 2 presents the position of share given to different States from Union Excise duty. The total money flowing to the States through this channel is nearly double the amount flowing through the share of income tax. This is about 54% of the total resources going to the States through the Finance Commission. The share of the advanced States has gone up from 26.84% (given by the Eighth Finance Commission) to 26.97% as given by the Tenth Finance Commission. Simiarly, the share of middle income States has also gone up from 17.47% (given by the Eighth Finance Commission) to 17.68% as given by the Tenth Finance Commission. The backward States on the otherhand got less as compared to the two earlier Commissions. This appears to be a major departure of the Tenth Finance Commission which injures the interest of the backward States. Looking at the share allotted to Orissa by the Tenth Finance Commission, it is seen to be less than what the 7th, 8th and the 9th Finance Commissions awarded in its favour.

Table - 3 illustrates the position of grants-in-aid allocated to the States under the different Finance Commissions. It is clear from the table that Orissa has got substantially less in the awards of the Tenth Finance Commission. The advanced States like Gujarat, Maharastra, Tamil Nadu and West Bengal received sizeable amount of grants-in-aid which is not reflective of their financial condition. In the middle category States the State of Andhra Pradesh had the enormous blessing of the Commission and could manage a substantial grants-in-aid compared to many backward States.

The aggregate resource flow percentage to different States are presented in Table - 4. Both the advanced as well as the middle income States got more as compared to the Ninth Finance Commission awards. For the middle category States this was higher than even the Seventh and Eighth Finance Commission awards. The share of backward States has gone down by about 3%. Orissa got 1.12% less as compared to the Ninth Finance Commission award and 0.57% less as compared to Eighth Finance Commission award. Orissa's share was the lowest among all the backward States. The total resource flow through the Tenth Finance Commission is proposed to be of Rs. 226643 crores. The reduction of Orissa's share to the tune of 1.12% means a reduced allocation of Rs. 2515 crores to this poor state.

TABLE—1

Percentage Share of Income Tax to Non-Special Category States through different Finance Commissions

States	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Advanced :										
Gujarat	—	—	4.78	5.29	5.13	5.96	5.55	4.41	4.55	4.05
Hryana	—	—	—	—	1.73	1.82	1.77	1.07	1.24	1.24
Maharastra	17.50	15.97	13.41	14.28	11.34	10.95	11.05	8.39	8.19	6.13
Punjab	3.25	4.24	4.49	4.36	2.55	2.71	2.75	1.74	1.71	1.46
T. Nadu	15.25	8.40	8.13	8.34	8.18	8.05	7.94	7.57	7.93	6.64
W. Bengal	11.25	10.08	12.09	10.91	9.11	8.02	8.89	7.80	7.98	7.47
Total	47.25	38.71	42.90	43.18	38.04	37.49	37.95	30.98	31.60	26.97
Middle :										
A. Pradesh	4.50	8.12	7.71	7.73	8.01	8.02	7.76	8.19	8.21	8.47
Karnataka	2.25	5.14	5.13	5.14	5.40	5.44	5.33	4.98	4.93	5.34
Kerala	2.50	3.64	3.55	3.59	3.83	3.95	3.92	3.76	3.73	3.88
Total	9.25	16.90	16.39	16.80	17.24	17.41	17.01	16.93	16.87	17.69
Backward :										
Bihar	9.75	9.94	9.33	9.04	9.99	9.54	9.61	12.08	12.42	12.86
M. Pradesh	5.25	6.72	6.41	6.47	7.09	7.35	7.30	8.38	8.19	8.29
Orissa	3.50	8.73	3.44	3.40	3.75	3.74	3.73	4.20	4.33	4.50
Rajasthan	3.50	4.09	3.97	3.97	4.34	4.36	4.50	4.55	4.84	5.55
U. P.	15.75	16.36	14.42	14.60	16.31	15.42	15.23	17.91	16.79	17.81
Total	43.504	4.39	40.71	40.72	44.72	45.10	45.04	52.09	51.54	55.35

Source : Reports of the different Finance Commissions.

TABLE—2

Percentage share of Union Excise Duty to Non-Special Category State through Finance Commission

States	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Advanced :										
Gujarat	—	—	6.45	4.80	4.17	4.57	4.10	3.51	3.18	4.04
Haryana	—	—	—	—	1.49	1.53	1.18	1.02	1.09	1.24
Maharastra	10.37	12.17	5.73	8.23	7.93	8.15	6.63	6.22	5.18	6.12
Punjab	3.66	4.59	6.71	4.86	2.17	1.87	1.23	1.32	1.36	1.46
T. Nadu	16.44	7.50	5.82	5.41	6.50	7.43	7.64	7.32	6.38	6:64
W. Bengal	7.16	7.59	5.07	7.51	6.84	7.79	8.03	7.45	6.60	7.47
Total	37.63	31.85	29.78	30.81	29.10	31.34	28.81	26.84	23.99	26.97
Middle :										
A. Pradesh	5.39	9.38	8.23	7.77	7.15	8.16	7.69	8.59	7.17	8.46
Karnataka	2.62	6.52	5.82	5.41	4.65	5.45	4.88	5.08	4.10	5.34
Kerala	2.68	3.84	5.46	4.16	4.28	3.86	4.03	3.80	3.08	3.88
Total	10.69	19.74	19.51	17.34	16.08	17.47	16.60	17.47	14.35	17.68
Backward :										
Bihar	11.60	10.57	11.56	10.03	13.81	11.47	13.02	13.20	11.03	12.86
M. P.	6.13	7.46	8.46	7.40	8.48	8.15	8.72	8.85	7.22	8.29
Orissa	4.22	4.46	7.07	4.82	4.72	4.06	4.68	4.59	5.36	4.50
Rajasthan	4.41	4.71	5.93	5.06	5.28	5.00	4.81	4.70	5.52	5.55
U. P.	18.23	15.94	10.68	14.98	18.82	17.03	18.29	19.10	15.64	17.81
Total	44.59	43.14	43.70	42.29	51.11	45.71	49.52	50.44	44.77	49.01

Source : Reports of different Finance Commissions.

TABLE—3

Statutory Grants to Non-Special Category States (Rs. in Crores) through Different Finance Commissions.

States	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Advanced :										
Gujarat	—	—	21.00	—	17.99	—	—	71.87	62.49	860.64
Haryana	—	—	—	—	—	—	—	11.25	41.62	238.15
Maharastra	—	—	—	—	—	—	—	18.12	149.03	849.24
Punjab	7.37	11.25	—	—	—	—	—	35.00	159.02	429.06
T. Nadu	—	—	12.00	20.52	22.82	—	—	21.87	172.05	738.03
W. Bengal	14.00	19.25	—	—	72.62	234.86	—	629.36	1181.87	875.57
Middle :										
A. Pradesh	1.20	20.00	38.00	21.66	65.03	205.93	—	141.74	510.16	1755.60
Karnataka	2.00	30.00	27.00	54.72	—	—	—	15.00	79.02	486.19
Kerala	2.25	8.75	25.00	62.46	49.65	208.93	—	29.31	476.83	504.81
Backward :										
Bihar	2.48	19.00	3.00	—	—	106.28	—	214.65	1621.70	1353.11
M.P.	2.04	15.00	12.00	8.10	—	—	—	169.57	1208.43	818.47
Orissa	4.72	16.75	53.00	87.54	104.67	304.73	136.92	348.06	1262.66	923.14
Rajastan	1.19	12.50	21.00	6.73	51.49	230.53	—	137.99	1613.19	1145.61
U. P.	—	—	—	—	—	198.83	—	189.43	3585.83	2632.24

Source : Reports of different Finance Commissions.

TABLE—4

Percentage Share of Total Resources flow to Non-Special Category States through the Finance Commissions.

States	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Advanced :										
Gujart		3.66	6.92	5.16	4.81	4.47	5.12	4.39	4.15	4.63
Haryana		—	—	1.67	1.56	1.46	1.64	1.30	1.33	1.46
Maharastra		11.2	9.72	10.92	10.15	8.63	9.11	7.77	6.92	7.15
Punjab		5.30	4.80	2.47	2.36	2.05	2.23	1.91	1.87	1.87
T. Nadu		7.44	7.46	8.54	7.73	6.53	7.99	7.27	6.92	6.97
W. Bengal		10.56	7.62	8.32	9.36	9.98	8.49	10.17	8.27	7.82
Total		38.18	36.52	37.08	35.97	33.12	35.58	32.81	29.46	29.90
Middle :										
A. Pradesh		9.19	9.93	9.58	8.60	9.41	8.10	8.54	8.08	9.43
Karnataka		7.50	6.60	8.59	5.16	4.65	5.34	5.10	3.75	5.49
Kerala		3.87	5.56	7.44	4.85	5.82	4.10	3.80	4.54	4.03
Total		20.56	22.09	25.61	18.61	19.88	17.54	17.44	16.37	18.95
Bihar		9.74	8.35	8.50	10.61	10.24	11.77	12.45	12.48	12.87
M. Pradesh		7.31	7.06	6.90	7.15	6.59	8.49	8.72	8.76	8.40
Orissa		4.83	8.22	9.08	5.99	6.99	5.23	5.63	6.17	5.06
Rajasthan		4.90	5.70	5.42	5.53	6.84	4.80	4.94	7.29	5.95
Uttar Pradesh		14.47	12.03	15.67	16.10	16.35	17.62	18.00	19.48	18.87
Total		41.25	41.36	45.47	45.38	47.01	47.91	49.74	54.18	51.15

Source : Compiled from the Finance Commission Reports.

Table - 5 presents total resource flow to Orissa through different finance Commissions.

TABLE—5

Total Resource Flow to Orissa through Finance Commissions.

(Rs. in Crores)

Finance Commission	Total resource flow	Avg. resource flow	Chain Index
2nd 1957-62	47.25	9.45	——
3rd 1962-66	101.20	25.30	267.72
4th 1966-69	49.56	16.52	55.29
5th 1969-74	287.37	57.47	347.88
6th 1974-79	577.32	115.46	200.90
7th 1979-84	984.45	196.89	170.53
8th 1984-89	1909.66	381.93	193.98
9th 1990-95	5523.04	1104.61	289.21
10th 1995-2000	9706.55	1941.31	175.74

It is clear from the table that the awards of the 2nd, 4th, 5th and that of 9th were highly favourable to the State of Orissa with more than 200% rise in resource flow whereas the other Finance Commissions were not as sympathetic to Orissa's cause.

Conclusions :

One can conclude the following :

1. The recommendation of the Tenth Commission will result in widening of the already existing economic disparity in the Indian Federation. This Commission has reversed the process of equalisation started by the earlier Commissions.
2. The Commission has not taken care of its terms of reference particularly in the matter of 'generating surplus for capital investment'.
3. Orissa suffered severely due to methodological change in the Tenth Finance Commission's approach and its share in the total resource flow through the Finance Commission is the second lowest since independence.
4. In the trade-off between equity and efficiency the Commission appears to have preferred the latter over the former.
5. It is important to note that in the new liberal ecomomic environment, the developed States have already an edge over the backward states in mobilising large scale investment both from external as well as internal sources. The Commission has neglected this perspective.

Tenth Finance Commission and Orissa

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The Constitution (Art 280) provides for the appointment of Finance Commission at least in every five years, to assess the fiscal (non-plan) needs of the states and on that basis, formulate proposals for transfer of resources from the Centre to the states through devolution of taxes and grant-in-aids. Until now ten Finance Commissions have been set up to recommend horizontal and vertical devolution of taxes and grants-in-aid to eliminate revenue gap of the states. The Finance Commission thus seeks to ensure that the states are in a positiom to meet fully their no-plan expenditure.

The Planning Commission deals with the problems of planning and plan assistance. Besides, discretionary or non-statutary, non-plan transfers are given by the government of India to the states which include (i) schemewise transfers, (ii) small saving loans, (iii) assistance for meeting relief expenditure (iv) ways and means advances and (v) miscellaneous loans including overdraft, gap and special accommodation loans. In fact, transfer of resources from the centre to the states has taken forms which has fallen largely outside the ambit of Finance Commission.

If we analyse such transfers, we find that plan and discretionary transfers have always been greater than statutory transfers. It is only during 1995-96 (BE), the statutory transfers have been greater than plan and discretionary transfers. Since the fourth FC, there has been a change in the approach of FC since it has been transferring resources under shared taxes and grants to cover the gaps in the non-plan revenue accounts of the states although the 9th FC has again entered into the purview of plan transfer.

The approach to the Finance Commission :

The first FC (1952-57) was asked to attend to its constitutional duties. It was further required to recommend grants-in-aid to states who had lost revenue because of the abolition of the export tax on Jute (which had hitherto gone to the states). Moreover, it was asked to determine the amount of general purpose grants-in-aid which were to go to the states. The first FC made no distinction between plan and nonplan revenue expenditure. The second FC (1957-62) was additionally asked to determine grants-in-aid to be paid to the states, (i) to help them meet the requirements for the second five year plan, and (ii) to help them mobilise more resources in the long run, as it was appointed on the advent of much published drive towards industrialisation with the implementation of the 2nd five year plan. It should be noted here that these additional clauses were added on only in the case of these states which were in need of funds. The Second Commission was specifically required to cover plan requirements. The guidelines issued to the third Finance Commission (1962-66) were the same as those issued to the Second. But the Central govt. accepted only non-plan recommendation. When the 4th Finance Commission was appointed a major transformation was effected ; in that the Commission was asked not merely to determine amounts of grants-in-aid but also some norms by which states could economise on their administrative expenditures. Another major break that the Fourth Finance Commission made with the past was that the grants-in-aid were made independent of the ensuing plan. The Third Finance Commission had (unsuccessfully) tried to give 75% of their plan expenditure to the states as grant-in-aid. With the appointment of the Fourth Finance Commission it was felt that plan expenditures of the states should be handled by the Planning Commission. The Fourth Finance Commission was further asked to scrutinise the revenue records and sources of the state governments and determine the committed (plan) expenditure and debt servicing of the states. It should be noted that different items on the revenue and expenditure accounts were sought to be scrutinised. But here lies the beginning of the approach that came to be known as the gap filling approach. Like the previous Commissions this one was also asked to confine grant-in-aid to only those states that needed such grant.

In a major break with the past, the fifth Finance Commission (1969-74) was asked to determine the principles by which grant-in-aid were to be made. Previous Commissions had confined themeselves only to the amounts of the grants-in-aid. The considerations which the Commission was asked to bear in mind were the following: First one is revenue available at base year rates of taxation. The expenditure to be covered included (a) administration (b) interest charges (c) upkeep of plan schemes (d) transfer of funds to local bodies and aided institutions and (e) other committed expenditures. The Commission was expected to fill in the gap between projected revenue and expenditure ; but in doing so it was also asked to advise on better fiscal management and economy.

The Sixth Finance Commission (1974-79) was especially asked to keep in mind a provision for emoluments of govt. employees, teachers and local body employees as obtaining on a specified date as Commission deems it proper in the light of the states' capacity and needs. Additionally the Commission was asked to keep in mind.

(i) The requirements of the states which are backward in standards of general administration.

(ii) adequate maintenance and upkeep of assets and plan schemes; and

(iii) The existing practice as regard to determination and distribution of central assistance for financing state plans.

The Seventh (1979-84) and Eighth Finance Commissions (1984-89) had similar obligations. The position arrived at by the 4th Commission was formalised in the terms of reference to the fifth, sixth, seventh and eighth commissions by requiring them to confine their recommendations to the non-plan revenue account. The mandate of Ninth Finance Commission (1989-90 to 1990-95) is somewhat different from the other Commissions. It had been called upon (i) to frame its scheme of transfers to the states not only with reference to their non-plan revenue account, but also with reference to the plan revenue account on the basis of normative approach to the assessment of receipts and expenditures. (ii) to keep in view the objective of not only balancing the receipt and expenditures on revenue account of both states and centre, but also generating surplus for capital investment and (iii) to submit two reports, namely one for 1989-90 and another for 1990-95.

The Ninth Finance Commission without any consultation with the Planning Commission arrived at its own estimates for so called "minimum plan revenue expenditure", the post-devolution non-plan surplus or deficits in individual states for meeting them and plan deficit grants required to fill in the gap. The arbitrary procedures followed by that Commission resulted in a variety of distortions and inequalities.[1]

Tenth Finance Commission :

Therefore the terms of reference for the Tenth Finance Commission have reverted back to earlier practice and that the Commission has accepted this position not to deal with Plan transfers as it is a non-permanent body and which neither has the continuity nor competence to get involved in plan resource allocation. It was felt that they are best administered by a standing body (Planning Commission) which is continuously involved in and knowledgeable about the plan as a whole at the Centre and among the states.

The core of the scheme of Tenth Finance Commission consists of (a) projections, on the broad normative basis, of revenues and expenditure at the two levels so as to bridge the gap between the centre's capacity and states' needs, (b) the basis for vertical sharing of the sharable taxes between two levels, (c) the formulae for horizontal sharing of the devolued amount between the states and consequent to it, the determination of specific revenue gap grants to the states which would remain still in deficit. Other issues dealt by the Commission include distribution of additional excise duties in lieu of sales taxes, grant-in-lieu of the repealed tax on railway passanger fares, grants for upgradation of certain services in the states, grants for calamity relief, grants for local bodies and a scheme for debt relief. Most interestingly the Commission has also presented an Alternative Scheme of Devolution which has the potential for initiating long term reforms in Centre-State fiscal transfer. It has proposed inclusion of some taxes in the common central pool meant for distribution among states and the states will be entitled to a share of 29 per cent of these proceeds. It is proposed that the alternative scheme of resources sharing may be brought into force with effect from 1st April 1996 after necessary amendments to the Constitution.

Devolution of Sharable Taxes :

A comparison of vertical transfers shows that during the Eighth and Ninth Commissions the income tax share for the states was 85 per cent and the excise share was 45 per cent. The Eighth Commission earmarked 5 per cent for the deficit states while the Ninth Commission increased the earmarking to 7.425 per cent. The T.F.C. has reduced the Income Tax share to 77.5 per cent and has offset the reduction by increasing the excise share to 47.5 per cent. In the net, taking the two taxes together there is no increase in the state's share. Of the excise share, 7.5 per cent has been earmarked for deficit states.

A comparison of the criteria for Horizontal sharing in the TFC report shows that TFC has (i) Adopted the same criteria for income tax and excise duties. In the process it has eliminated collections as a factor in income tax sharing.

(ii) The common criteria are based on 20 percent for population, 60 per cent based on the adjusted distance criteria based on per capita income of states, 10 per cent related to tax effort, 5 per cent on the basis of area adjusted (i.e. area of the states concerned after making certain adjustments) and 5 per cent on the basis of Index of infrastructure development (states lower in infrastructure scale getting a higer share).

TFC has taken a significant step forward in terms of logic, simplicity and equity in adopting identical criteria for the two sharable taxes. The case of sharing one principle and for eliminating the contribution criteria for Income Tax sharing was argued by Prof. Raj Krishna in 1978 in his dissending note to the Report of the Seventh Commission as any weight given to collection is considered as regressive because a larger collection is invariably associated with a higher level of state domestic product (since we are interested in greater horizontal justice in the inter-state allocation of resources of total transfer).

As regards components of the Commission's criteria, it can be seen that if the weights for contribution in income tax and the earmarking for deficit states in excise duty are left out, the same criteria have been followed in the Eighth and Ninth Commissions in respect of both sharable taxes. It has been rightly pointed out by Justice P. V. Rajamany, the distinguished Chairman of the Fourth Commission, that the tendency of successive Finance Commissions to choose varying criteria for horizontal distribution as "a gamble on the personal views of five persons or majority of them". We can see that TFC could have arrived at more or less the same final result if it has opted for a simple and robust cocktail 40 per cent for population and 60 per cent for distance criteria.[2]

Gap filling :

TFC has recommended Grants under Art-275 to fill the revenue deficit in the non-plan account of certain states in which revenue gap is not eliminated through central tax transfers. Relative financial status of the major states over the time span of four Finance Commissions shows that Gujarat, Haryana, Karnataka and Maharastra have consistently maintained their position as pre-devolution surplus states, while Punjab slipped from this category in the Ninth and Tenth Commissions. On the other hand more and more states have regressed into the post devclution deficit category. They include the low income states of Orissa and Rajasthan in the earlier Commissions and Uttar Pradesh, Bihar in the latter ones. Compared to the Seventh, tax shares have played a lesser role vis-a-vis deficit financing in the Eighth, and especially in the Ninth Commission. The pattern in the TFC restores the practice in eighth.

Other Recommendations :

Besides these major recommendations, the Finance Commission has also made some general observations regarding resource position of the Central and State Governments.

(i) It has observed that the change in the fiscal regime in 1982-83 from revenue surplus to revenue deficit has become a source of rising internal indebtedness. Earlier, while the revenue receipt (surplus) used to cover a part of the capital expenditure, now an increasing part of the capital receipt is used to finance revenue expenditure which consequently build up public debt and interest burden which is further pulled up the growth of revenue expenditure. This led to growing deficit, rising debt and thus escalating interest costs and further expansion of deficit.

(ii) It points out that investments in irrigation, power and road transport, which constitute bulk of state government investment do not yield enough returns. The state governments should fix up users charges in irrigation and power at levels which do not even cover the operation and maintenance expenditure in irrigation and generate meagre surpluses in power. State Electricity Boards are overstaffed and run at substantial losses. It has observed that no society can move upwards if cost of services does not have to be borne by those who benefit from them specially when capacity to pay is not a constraint.

(iii) It has suggested that central subsidies need to be phased out as quickly as possible and those on food better targeted.

(iv) Expenditure control should involve questioning every item of expenditure every year, rather than giving automatic approvals on the basis of continuity of schemes or projects.

(v) Viable methods of reducing the strength of the government employment must be explored, otherwise economic reform may lose its way in a bureaucratic maze. It has suggested that the state govt. and central govt. should absorb the surplus staff in other activities and should encourage them to avail of retirement with attractive benefit.

(vi) Report is critical of the continued persistence of a large number of centrally sponsored schemes although a number of them has been closed down following a review by a committee set up by National Development Council. But these are relatively small representing an annual provision of only Rs. 200 crores as against a total of all centrally-sponsored schemes of about Rs. 14,000 crores. The continuance of these schemes, although they are acceptable to states because they carry with them additional resources, makes for sprawling bureaucracies at the centre, dealing with state subjects of agriculture, rural development, education and public health.

(vii) Report also makes observations on the changing role of Planning Commission in the wake of economic reform. It has emphasized that greater market orientation and enhanced role of private and foreign investment will put additional responsibility on the public sector. In particular, public outlay on education and health will need to be increased substantially. Hence the resoure base of the state govt. will have to be correspondingly enhanced.

(viii) It has recommended that the present artificial distinction between plan and non-plan expenditure which runs across in revenue and capital budget shall be replaced by simpler and conventionally well recognised distinction between revenue and capital.

(ix) The Report recommended that a full-fledged Finance Commission Division appropriately staffed with adequate technical expertise be created at the earliest under a senior officer and made to function within the Finance Ministry. The division should be actively associated with the annual plan excercises of Planning Commission so that rare assets already created do not suffer from either lack of attention or lack of resource allocation because of the anxiety of states to have progressively larger plan.

Case for Orissa :

A review of components of federal transfer and the share of Orissa in the federal transfer shows that during 5th, 6th, 7th, 8th & 9th Finance Commission periods Orissa received 5.41, 5.87, 4.55, 5.48, 5.04 per cent o. revenues respectively out of total federal transter by the Centre to the states and the state will receive still lower amount during 10th Finance Commission period (4.28%) of the total revenue proposed to be transferrede to the states. As regards components of transfer it can be seen that the shared tax constituted 3.98, 3.85, 4.27, 5.44, 5.48% of total tax devolution in 5th, 6th, 7th, 8th, 9th commission periods respectively. It is proposed that the state will receive 4.25% of sharable tax during 10th Finance Commission period. The grant was 1.31, 1.18, 8.0, 6.02 and 2.91% of the total grant during 5th, 6th, 7th, 8th and 9th Commission periods respectively. It is proposed to be 4.54% of the total grant given by the Centre to States during 10th Finance Commission period.

Again a review of total revenue transfer from the Centre (both statutory and other transfers) as a percentage of total revenue of the state shows that statutory transfer constituted 32.77% during 2nd Finance Commission period which increased to 38.72% during 9th Commission period. But during the 1st year of 10th Finance Commission period this transfer (95-96) constituted 36.07%. On the other hand, the other transfer although constituted 13.56% during the 2nd Commission period, it has increased to 26.24% during the 9th FC period and it is estimated to come down to 20.84% of the total revenue during 95-96 (B. E.) of the state.

Again it is found that the revenue transfer as percentage of total revenue expenditure improved from 39.78 percent during 3rd Finance Commission period to 56.11 percent during 9th Finance Commission period. It is proposed to be 45.44 percent during 95-96 (B.E.). On the other hand loan transfer as a percentage of capital transfer which was 21.02 percent during 3rd Commission period was reduced to 11.97 percent during 9th Finance Commission period and it is proposed to be 17.62 percent during 95-96 (BE). The total transfer (statutory transfer, other transfer + loan transfer) which constituted 40.53 percent of total expenditure during 3rd Finance Commission period was reduced to 30 percent during 9th Finance Commission period and it is estimated that it would be 32.50 percent of total expenditure during 95-96 (B.E.).

It is also seen that the central transfer through the F.C. has not been able to fill up the revenue gap of the state. For example in the Fifth FC, even after the revenue transfer from the centre through shared taxes and grants, the uncovered gap was - 87.45 crore. There was some marginal surplus in the 6th, 8th F.Cs.; but the gap increased to - Rs. 348.3 crore in the 9th F.C. It is also apprehended that there would be deficit even after the devolution of resources by the 10th F.C..

The 10th F.C. has called upon the states to cover an appropriate part of their deficits through resource mobilisation and expenditure reduction. Despite being required under one of its terms of reference to take into account the potential for raising additional taxes in the states, the TFC has not made any attempt to specifically estimate the potential: instead it has reffered only to tax buoyancy estimate. As such, some of the states with higher per capita income have got more assistance than the poorer ones. In its process, it has missed the opportunity to operationalise its own exhortations for greater fiscal discipline.

If we compare per capita own revenue of the state, per capita revenue after resources transfered from the centre and per capita revenue of all states' average, we find that the per capita gap between own revenue of Orissa and averages of India has widened from 1973-74 to 1994-95. The per capita own revenue was Rs. 30.94 in 1973-74 which increased to Rs. 452.9 in 1994-95 whereas the average of all states which were Rs. 57.28 in 1973-74 increased to Rs. 764.1 in 1994-95. The gap was Rs. 26.34 in 1973-74 which increased to Rs. 311.2 in 1994-95.

The gap has not been bridged through the Central transfer. Although the per capita revenue gap after transfer of resources was Rs. 24.04 in 1973-74 further increased to Rs. 284.9 in 1994-95. Hence the state continues to utilise lower amount of revenue for its development as a result of which it remains at a lower stage of development. The central assistance does not respond to needs or compensate for backwardness.

It is also found that the per capita income difference of the state with that of average of states was Rs. 174 in 1973-74. This has further increased to 10 times in 1992-93 compared to that of 1973-74 (i. e. Rs. 2286). As it has utilised lower amount of revenue for its development the gap has widened further in recent years.

Since the state is Collecting only 9.40% of its income as revenue, there is a possibility of augmenting more resources through own resources in future by its own effort. The state govt. should explore this possibility. At the same time the state deserves special consideration from the centre as a poor and deficit state to receive favourable amount of Central resources in order to raise its position to all India level.

The following conclusions emerge from the study.

(1) The state continues to be a deficit state in non-plan revenue account after the devolution of shared taxes from the centre. The gap in the non-plan revenue account is not also filled up through grant-in-aid from the centre. Hence the state was in deficit revenue account in the 1st, 2nd, 3rd, 4th, 8th & 9th Finance Commission periods and it will also continue to be in deficit state after the devolution of Central transfer through 10th Finance Commission award.

(2) Although there is no reason why the state should not try to augument its own resources for its development since it is raising negligible resources in the state still the state deserves special consideration for a higher central transfer as the per capita average state income of all states has increased 10 times between 1974-75 to 1992-93.

Notes :

1. Guhan, S. EPW April 22, 1995, pp 878.
2. Guhan, S. EPW April 22, 1995, pp 884 (Table No 15)

Norms of Devolution of Resources by The Finance Commission

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Finance Commission is a quasi-judicial body provided in the Indian Constitution. Under Article 280 the President of India is empowered to appoint a Finance Commission on a quinquennium basis for the devolution of resources between the Centre and State in a federal set up. Tenth Finance Commission has been constituted with K. C. Panth as Chairman and four other members. The recommendation of TFC has been operative for the five year period commencing from 1st April 1995.

Resources tranfer from the Centre to States :

The Centre has been providing financial assistance to the States through three channels. Firstly through the recommendations of the Finance Commission i. e. statutory transfers. Secondly through the Planning Commission, a nonstatutory agency. In the distribution of plan assistance, the Planning Commission is used to be guided by Gadgil Formula, modified Gadgil Formula and Pranab Formula. Thirdly at the instance of the Union ministries, specially the Finance ministry, resources also flow indirectly i. e. through establishment of public sector enterprises and distribution of credit by financial institutions under the control of Central Government.

In 1968 Prof. D. R. Gadgil devised a formula for the devolution of resources between the Centre and States. This formula has been revised from time to time as given in Table-1.1.

TABLE—1.1

Criteria for Inter-state allocation of plan assistance
(In percentage)

Basis	Original Gadgil Formula 4th & 5th Plan	Modified Gadgil Formula 6th & 7th Plan	Revised Gadgil Formula 8th Plan	Pranab Formula 8th Plan
1	2	3	4	5
Population	60	60	55	60
Per Capita income below the natinal average	10	20	25	25
Spill over Scheme under major irrigation power	10	—	—	—
Tax effort	10	10	—	—
Fiscal Management	—	—	05	7.5
Special problem	10	10	15	7.5
Total	100	100	100	100

Source : Working Papers of the Planning Commission and minutes of NDC meeting.

The table shows how plan assistance has changed under different principles.

In this paper we have made a comparison between Ninth Finance and Tenth Finance Commissions regarding the distribution of Income Tax and Excise Duty. Under Ninth FC the percentage share of states in Income Tax has been fixed at 85% whereas in Tenth FC it has been reduced to 47.5%.

In 9th FC, the basis of devolution of income tax and excise duty has been different as given below :

1. Basis of devolution of income tax :

(a) 10% on the basis of contribution as measured by the assessment of income tax for the year 1985-86 to 1987-88.

(b) 45 % on the basis of difference of per capita income of a State from the highest per capita State (Punjab) multiplied by 1971 population of the concerned State.

(c) 2.5% on the basis of population of the State in 1971.

(d) 11.25% on the basis of composite index of economic backwardness..

(e) 11.25% on the basis of inverse of per capita income multiplied by the population of the State in 1971.

2. Basis of devolution of excise duty :

(a) 25% on the basis of 1971 population.

(b) 12.5% is distributed on the basis of income adjusted total population (IATP). 1971 population of the State is weighed with the inverse of the average per capita income as per new series for the triennium 1982-83 to 84-85. The share of a State is determined by percentage of IATP of State to the aggregate of IATP of all the States.

(c) 12.5% is distributed on the basis of index of economic backwardness.

(d) 33.5% is distributed on the basis of distance of per capita income (New series of a State during the triennium 1982-83 to 1984-85 from the highest per capita State (Punjab) multiplied by 1971 population.

(e) The remaining 16.5% is distributed among the States with deficits, after taking into account their shares from the devolution of all taxes and duties. Distribution takes place on the basis of the proportion of deficit of each state to each state's deficit worked out by the Commission.

The TFC on the other hand has adopted a common criteria for inter-state distribution of net proceeds of both taxes to the States. The criteria adopted by TFC are as follows.

(a) 20% on the basis of population of 1971.

(b) 60% on the basis of distance of per capita income.

(c) 5% on the basis of area adjusted.

(d) 5% on the basis of index of infrastructure.

(e) 10% on the basis of tax effort.

The above analysis shows that there is a great deal of difference in the basis of devolution between 9th FC and 10th FC in respect of income tax and excise duty.

Table 1.2 shows the share of Orissa and adjacent states in respect of income tax.

TABLE—1.2

(In %)

States	9th FC Shares of States	10th FC Shares of States
A. P.	——	8.465
Bihar	12.418	12.861
M. P.	8.185	8.290
Orissa	4.326	4.495
W. B.	4.326	7.471

Source : Yojana 15th Nov. 1988, TFC Report.

It is amply demonstrated that as per 9th FC the share of Orissa is equal with W. B. but less than that of Bihar and M. P. As per 10th FC, the share of Orissa is the lowest among the neighbouring States.

The share of Orissa and adjacent States from the Union Excise Duties is mentioned in Table 1.3.

TABLE—1.3

States	9th FC Shares of States (in %)	10th FC Shares of States (in %)
Bihar	11.028	12.861
A. P.	7.170	8.465
Orissa	5.358	4.495
M. P.	7.224	8.290
W. B.	6.600	7.471

Source : Yojana 15th Nov. 1988 & TFC Report.

It is evident from the above table that the percentage share of Orissa from the Union Excise Duties is much lower compared to the neighbouring States. And further the share of Orissa from the proceeds of Union Excise Duties has declined compared to 9th FC.

Again, if we compare the transfer of resources to Orissa and adjacent states between 1995-2000, we find that Orissa's position has become very unfavourable as presented in Table 1.4.

TABLE—1.4

States	1995–2000	
	Amount (In Crores)	% to total
A. P.	18081.5	7.98
Bihar	24655.6	10.88
Orissa	9706.6	4.28
M. P.	16094.0	7.10
W. B.	14980.4	6.61

Source : TFC Report.

It is evident that the percentage share of Orissa from the divisible pool has been much less compared to other neighbouring States in view of moderate population of Orissa. The percentage share has declined compared to 9th FC.

The transfer to the States from the Centre in absolute terms as well as a percentage of total revenue receipts recommended by the successive FCs are mentioned in Table 1.5.

TABLE—1.5

Commission	Transfer to States Amount (Rs. Cr.)	% of Central revenue.
5th	5421	27.90
6th	11048	25.90
7th	22880	26.09
8th	29452	24.10
9th	106062	22.74
10th	226643	24.50

Source : B. L. Panagariya, ET, 4th Jan'96.

The above table reveals that there has been a continuous increase in transfer to states in absolute terms. But the State's percentage share in Central revenue has fluctuated between 22.74 to 27.90. In view of low percentage share the States are demanding for greater chunk from the divisible pool. In order to cater to the persistent demand of States, TFC has suggested a system of vertical resource sharing in which all Central taxes will be pooled and a portion devolved to States. According to this scheme 29% of gross receipts of Central taxes will be allocated to States which will be reviewed every 15 years.

How far the TFC has helped in reducing the disparity between the low income States and high income States has been presented in Table 1.6.

TABLE—1.6

Per capita Transfer (In Rs.)

States	NFC 1981 Census	TFC 1991 Census	% Increase
High Income States			
Maharastra	961	1741	80
Gujarat	996	2159	116
Punjab	935	1785	90
Low Income States			
U.P.	1544	2606	68
Rajasthan	1769	2402	36
Orissa	2028	3081	50

Source : ET, 4th Jan'96.

The above table reveals that while the percentage increase in per capita transfer of high income States ranges between 81 to 116, the percentage increase in case of low income States ranges between 36 to 68.

Thus the Centre's guidelines to TFC to adopt gap filling approach instead of becoming normative has accentuated the magnitude of regional imbalance among the States.

Fiscal Autonomy of States :

Recently fiscal autonomy of the States has gained momentum. The crux of the problem is to provide more fiscal powers to States and transfer greater chunk of the divisible pool to States as a whole for promoting vertical equity along with more rationalisation of allocation between States within the framework of constitutional arrangements. It has been suggested by the States to transfer more fiscal power to the States to impose new taxes which would reduce the dependence of the States on Centre. Equity ought to be the over riding criterion for the devolution of resources. The jurisdiction of PC & FC are overlapping and deficit of States are mostly due to their effort at planned development. Ashok Mitra has argued for reorientation of the PC absorbing the functions of FC for dovolution of fiscal and monetary powers and even for allocation of credit and foreign exchange to States. The PC instead of acting as the concerned ministry has to perform its modus operandi under the direction of NDC.

Special Problems with Reference to Orissa :

The preservation of Chilika lake and restoration of ecosystem have attracted attention. Area shrinkage, siltation, pollution and weed infestation threaten to choke the lagoon. TFC has recommended Rs. 27Cr. for the scheme of the State in this regard. A large number of ancient monuments including temples and pre-historic caves etc. need to be preserved and protected. A sum of Rs. 10 Cr. has been recommended for this purpose. For supporting flood control measures in especially vulnerable areas that are endemic to floods a sum of Rs. 8 Cr. has been recommended. To conserve plant genetic resources a sum of Rs. 6 Cr. has been recommended for the development of the Regional Plant Resource Centre at Bhubaneswar. All these are not adequate to meet the growing requirements of the state.

The revised Gadgil formula and Pranab formula are not conducive to Orissa in view of moderate population. To reduce the yawning gap in per capita income at 1980-81 constant prices between the centre and Orissa, greater chunk from the Central divisible pool should be available. Orissa with higher growth potential based on rich mineral resource and 40% of S. C. and S. T. population should be treated as a special category State and greater proportion of the Central divisible pool should be made available to the state. In order to assuage the regional imbalance and inter-State disparities, economically backward States like Orissa should avail greater chunk from the divisible pool.

TFC—A Study on Rewards to States

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I.Introduction :

The Tenth Finance Commission (TFC) has been guided by the need to restore fiscal equilibrium in the Indian economy and decrease the macroeconomic vulnerability of the economy due to the secular deterioration in its fiscal balance. The magnitude of aggregate deficits, revenue and fiscal, had reached levels in the late eighties that set the economy on a medium path of stagnation and recurring balance of payments crises.

Given the evolving scenario and the goals, the terms of reference of TFC is not only balancing the revenue account, but also to generate a surplus for capital investment. This objective for the states can be reached by increasing transfers from the Centre but that will lead to an unmanageable deficit in the Central budget. The TFC has chosen not to shift the deficits from the states to the Centre. The reference in its approach to this Issue is based on an understanding that a reduction in fiscal deficit has to come through improvements in the revenue account, emanating from the non-plan revenue account. Accordingly, attempts have been made by the TFC to generate sustainable non-plan revenue surplus (TFC Report, 1994).

The criteria adopted are 'equity' and 'defficiency'. The TFC report states that these are not mutually exclusive and .in its devolution formula it has tried to blend 'equity' with 'efficiency'. It further states that a healthier fiscal attitude can be generated if the grants are not based only on the emerging picture of surpluses or deficits but, on the needs and special problems of the states as identified by the Commission.

The report of the TFC is different from the earlier commissions in a number of ways. Broadly they are :

(i) The Commission has advanced its report in a difficult fiscal situation. It the second report of the Ninth Finance Commission (NFC) the emphasis was mainly to reduce revenue deficits. But this scenario had changed during the TFC's award.

(ii) In its economic logic the adoption of an identical formula, based on population and distance[1], is both sound and progressive.

(iii) The Commission is very particular about 'vertical sharing' of taxes between the centre and the states. The vertical sharing has reduced state's share in the income tax and at the same time increased states's share in the union excise duties.

(iv) The TFC has adopted the same criteria for the distribution of income tax and excise duties. However, it has eliminated 'collections' as a factor in income tax sharing.

(v) The common criteria of devolution are based on 20% on population, 60% on adjusted distance, 10% on tax effort and 5% each for area and infrastructure. The last criterion was adopted to help states with dispersed population and poor infrastructure. Compared to the second of NFC the backward states are in relatively less advantageous position in TFC. The reason is simple. In the second report of NFC, states' shares in the specific indicators of backwardness were respectively 11.25% and 12.5% for income tax and basic excise duties which are reduced to 10% and 8.42% in the TFC report. Similarly, the proportion devolved to deficit states decreased to 15.79% in the TFC from 16.5% in the NFC.

(vi) The TFC has proposed the 'pooling' of central taxes under its "Alternative Scheme of Devolution". The broad features of the scheme are :—

(a) Instead of allocating to the states' specified shares of the centre's revenue from only income tax and excise duties, they should be allocated a share of the 'aggregated pool' comprising the gross tax revenue of the centre. (b) All taxes in Article 269, except central sales tax shall form part of the central pool referred to above. (c) The share of the states be fixed at 26%. (d) This will also cover the grant-in-lieu of tax on railway passenger fares. (e) A further share of 3% of the gross central tax receipts shall be assigned to the states in lieu of the additional excise duties. (f) The share of states in the total gross receipts of the centre shall be suitably provided for in the constitution and reviewed once in 15 years. (g) The horizontal distribution out of the central pool as well as various grants will be as recommended by the TFC and subsequent Finance Commissions.

(vii) The TFC has also highlighted its stand on grants to local bodies, establisment of a National Calamity Relief Fund (NCRF) and the debt relief position of different states. However, these are ancillary or supplementary to the TFC's main scheme for transfer of resources.

The Finance Commissions do not make their recommendations purely on economic considerations. They are also based on historical and political considerations. It would be useful to analyse, the recommendations from an economist's perspective. As the Finance Commissions determine a major proportion of general purpose, current transfers from the centre to the states, their recommendations would have to be evaluated from the point of view of resolving vertical and horizontal imbalances.

In Orissa there is desperate need to develop the basic needs sector. Constructively this has left very little room for the development of social services infrastructure. In the following section the likely gains and/or losses to Orissa through TFC award will be analysed.

II. Tenth Finance Commission's Devolution Scheme : Gains and Losses. :

As noted earlier, the objective of the TFC is not only to balance the receipts and expenditures on revenue account but also generate surplus for capital investment and reduce fiscal deficits. The concern here is to promote better fiscal management consistent with efficiency and economy in expenditure. The rapid rise in revenue expenditure has been accompanied by a rapid increase in the numbers employed by the government without commensurate increases in efficiency and productivity. In most of the states the salary bills are growing faster than the growth of expenditure pre-empting an ever increasing proportion of resources for maintenance of government apparatus (TFC. 1994).

Orissa has been classified as a post-devolution deficit state by the Seventh, Ninth and Tenth Finance Commission. As states have different sources of revenue, tranfers by Finance Commission(FC)s are only one form of federal tranfser. The proportion of FC transfers in total revenue expenditure of Orissa during 1974-75 to 1994-95 shows that the proportion of finance Commission transfers in the total revenue expenditure was maximum for Orissa during 1974-75. More than half of the total revenue expenditure in Orissa is obtained through the Finance Commission transfers. However, over the years these proportions have gradually decreased for Orissa. On the other hand, during this period in all the states' own tax revenue, plan transfers and some other transfers have increased substantially. Transfers through FC gradually decreased for the states. Thus, the Finance Commission, which is a statutory body by the Constitution, has lost its significance.

Sharing of Revenues Under Multi-level Finance :

In a federal or multi-level finance system, revenue resources can be shared between the central government and the state governments through the division of tax powers, tax base sharing, tax proceeds sharing and inter governmental grants from the centre. In assigning relative importance to each of these methods as well as in working out the pattern of each device, a compromise should be effected among the criteria of state's autonomy and fiscal discipline, efficiency and inter-state equity. If the taxing powers are sufficiently decentralised so that each jurisdiction can finance through its own services, the entire or almost the entire cost of the services it provides, there will be the greatest degree of autonomy and also the fiscal discipline will be strengthened. However, such an arrangement will violate the criteria of economic efficiency and equity.

(a) Tax Sharing

Tax sharing is preferable to grants-in-aid. This is because, tax devolution on the basis of a formula is a predictable source of revenue and the states would gain automatically from the buoyancy of the shared central taxes. Moreover, if the percentage of the central taxes are to be shared and the principles of distribution of the 'divisible pool' among the states are fixed constitutionally there will be certainty and avoidance of conflict and of continuous bargaining.

Vertical Shares .

Consider the vertical shares recommended by previous FCs and compare them with the TFC. The share of income tax devolved to states gradually increased starting from FC to the 2nd Report of the NFC. During Eighth and Ninth Commissions the income tax share was 85% and the excise share was 45% for all the states. The Eighth Finance Commission kept 5% for the deficit states whereas the NFC increased it to 7.425%. The TFC has reduced the income tax share to 77.5% and has offset the reduction by increasing the excise share, to 47.5%. Of the excise share 7.5% has been earmarked for deficit states. In the net, taking the two taxes together, there is no increase in the states' share. Orissa, which is a post-devolution deficit state, has not gained from the TFC's recommendations.

The centre being the authority which levies and administers the income tax "should have a significant and tangible interest in its yields". The implication is that the centre has lost interest in the levy and/or collection of income tax yields. These will improve only when the centre comes to believe that virtue has to be its own reward (Guhan, 1995). The TFC has decided to keep apart 7.5% out of 47.5% of Union excise duties assigned to states for distribution amongst the states assessed to be deficit by the FC. The earmarking of a proportion of the excise share for post-devolution deficit states is a 'bad practice' by the Eighth Commission and continued by the Ninth. The TFC unfortunately has persisted with the same logic.

Horizontal Shares :

The TFC has adopted the same criteria for devolution of income tax and excise duties but, in the process it has eliminated 'collections' as a factor on income tax sharing. Raj Krishna in his dissenting note to Seventh Finance Commission pointed out : "From economic point of view the states are interested in more 'vertical justice' in the form of greater devolution from the centre. And they should be interested in greater 'horizontal justice' in the interstate allocation of total transfers". In the evolution of Finance Commission awards the TFC has taken a significant step in terms of logic, simplicity and equity in adopting identical criteria for two shareable taxes.

Consider the criteria adopted for horizontal sharing in the TFC's recommendations for income tax and basic excise duties and compare them with previous FC's recommendations. Different weights are given in different FC's award. Within them the distance criterion has been given more importance compared to inverse criterion both of which are related to per capita incomes of the states. The TFC has confined to this general trend. In the matter of the per capita income related weights, it has prefered the distance criterion to the inverse formula since, the former results in more equitable distribution.

In the income tax sharing specific indicators of backwardness had a share of 11.25% in the NFC's award which has disappeared in the TFC's recommendation. On the other hand, the share of tax effort has increased. This indicates that high and middle income states are gainers while Orissa, a low income and hence low tax effort state is the loser. In sharing basic excise duties, the share of specific indicators of backwardness has decreased from 12.5% in NFC to 8.4% in TFC's recommendation. Similarly, the proportion of post-devolution deficit states has decreased from 16.5% to 15.7%. Tax effort has got a share of 8.4% in the

TFC's award which was absent in the NFC. These are favourable to the high and middle income states while, Orissa is in a disadvantageous position.

The growth of total FCT to Orissa is 14.4% which is less than the respective values of the low, middle and high income states and all states. This indicates growth of FCTs to Orissa is less, compared to other states whatever might be the criteria of devolution. Transfers through FCs consist of shared taxes, non-plan grants and non-plan loans. Orissa was in an advantageous position when growth rates of shared taxes are compared with low—, middle—, high-income and all states for the period 1974-75 to 1994-95. Orissa's growth of non-plan grants and non-plan loans was less compared to middle—, high-income and all states figures for the same period. If we consider FCTs after repayment of loans, Orissa is also in a disadvantageous position. Its growth rate is 14.4%, which is less than the low—middle—, high-income and all states figures.

(b) Additional Excise Duties :

Assigned taxes are those taxes which are levied and collected by the centre but the net proceeds of which are distributable among the states as per the recommendations of the FCs. The devolution under additional excise duties is in the nature of a tax rental arrangement whereby the states are compensated for the sales taxes replaced by additional excise duties on sugar, tobacco and fabrics. The TFC has assigned the weights 50:40:10 for population, SDP and state sales tax collections.

The proportion of Orissa in additional excise duties is 3.5% which is less than 10% of the total transfers to low income states by the TFC award. This indicates the share of other four low income states. Bihar, Rajasthan, U. P. and M. P. get around 90% of the transfers coming to low income states. On average term also, the share of Orissa is less than the average of the low-income, middle-income and high-income states

(c) Grants-in-Lieu of Tax on Railways Passenger Fares :

As regards the principles of distribution, TFC has agreed with the Seventh, Eighth and Ninth Commissions which recommended that the distribution of grants should be in proportion to the non-suburban passenger earnings from traffic originating in each state. The quantum of the grant in lieu of the Railway passenger fares tax for 1995-2000 is Rs. 380 crores annually. Orissa is a loser state if, the TFC award is considered through the above grant. Its proportion is 1.7% which is less than 20% of the share coming to low income states (37.93). The average value of the percentage transfer to low income, middle income and fourteen major states is more than three times that of Orissa's share.

(d) Grants-in-Aid :

The principles which should govern the grants-in-aid of revenues of the states, that are in need of assistance are recommended under Article 280(3)(b) of the Constitution. Grants-in-Aid are meant for covering assessed deficits on non-plan revenue account of the states and are calculated after considering transfers to the states on account of (i) devolution of income tax and excise duties (ii) share in additional excise duties and (iii) share in grants-in lieu of tax on railway passenger fares.

Improvement in the non-plan revenue account will go to reduce fiscal deficit only if it is not offset by a corresponding deterioration in the plan revenue account and capital account. This will help to improve the non-plan revenue account of the centre and the states which contribute to a reduction in fiscal deficit. The difference between assessed needs and assessed post-devolution resources on the non-plan revenue account is a resource gap. This gap is ideally estimated through a full fledged normative exercise.

The TFC recommend grants-in aid to be given to the states under the substantive portion of Article 275 (i) equal to the amount of the deficits as estimated for each of the years during 1995-1996 and 1999-2000. The share of Orissa in the TFC award through Grant-in-aid is 4.54%. The share of fourteen major states is 63.25%. The shares of middle and high income states in average terms are 3.54 and 2.92 percent respectively. In comparison to high income and middle income states. Orissa is in a better position so far as the grants-in-aid is concerned. This is because it got some special relief since it is characterised by high 'fiscal stress'. But compared to the low income states its position is worse.

(e) Total Transfers :

In the 2nd report of the NFC total transfers by the FC was 5.21% to Orissa out of total transfers to all states. The share of Orissa in the TFC recommendation is only 4.28%. The criteria that were adopted in TFC recommendations were such that the low income states' share decreased from 45.76% in NFC to 43.14% and on the other hand the share of Middle income states increased from 26.74% in NFC to 28.53% in TFC. During this time the high income states' share increased marginally.

Hence, the TFC's devolution criteria is not much helpful to Orissa as its share decreased compared to the 2nd report of NFC.

(f) Alternative Criteria of Devolution :

TFC favoured a system of vertical resource sharing in which central taxes are 'pooled' and a proportion devolved to the states. Various recommendations for alternative criteria of devolution are discussed in Section I of this paper. However "there will be no gap-filling grants" (TFC) by this alternative scheme. Once the transfer covers both plan and non-plan grants the question of 'gap-filling' will not arise. A gap arises only when the non-plan revenue account is looked at separately. If there is gap at this stage it will be filled by Article 275 grants.

Considering the alternative scheme of devolution the share of fourteen major states is more than 94.5% by any of the criteria, i. e., population, distance, inverse or adjusted distance criteria[4]. But by TFC devolution scheme it is only 84.4%. This indicates the alternative scheme of devolution gives less importance to special category states. As indicated in Table 5, devolution to Orissa by 'Alternative Scheme of Devolution' by distance, inverse or adjusted distance criteria is more than the devolution through TFC award and is less than the one based on the population criterion.

Let us compare now the percentage devolved through the TFC devolution criteria with that of the 'Alternative Scheme of Devolution' criteria. It can be seen that the percentage receipt of low income states through population criterion is less than the TFC's devolution. On the other hand the share of middle and high income states have increased. Similarly, through the distance, inverse income and adjusted distance criteria the share of low income and middle income states will be increasing compared to TFC devolution criteria and at the same time the shares of high income states are decreasing.

Considering TFC's original award and comparing it with the Alternative scheme of Devolution criteria it can be stated that the population criteria is 'efficiency' based whereas the distance, inverse income and adjusted distance criteria are 'equity' based, Orissa, can gain from the 'Alternative Scheme of Devolution', as proposed by TFC, if distance, inverse income or adjusted distance criteria is adopted in its scheme of devolution.

III. Conclusion :

The TFC has broken new grounds in some respects. Keeping the 'puranic tradition', S. Guhan had described the TFC as the Tenth incarnation of God. The Commission had to carry its task in a particularly difficult fiscal situation. It had abolished 'collection' as a criterion of income tax sharing. Above all it had proposed an "Alternative Scheme of Devolution" in the form of 'pooling of central taxes for devolution'.

Considering the devolution by the Tenth Finance Commission to Orissa it can be said that the proportion devolved by TFC is less than that of the second report of the Ninth Finance Commission. In the TFC's award the average of the Low income states is more than Orissa's share in all types of transfers. Orissa's share is miserable when additional excise duties and grants-in-lieu of tax on railway passenger fare are considered. The pooling of central taxes for the purpose of devolution to the states as recommended by TFC is very narrowly conceived. Furthermore it ignores the possible alternatives such as transferring the domestic trade taxation to the states etc. In the 'Alternative Scheme of Devolution'. Orissa can gain if distance, inverse or adjusted distance criteria are adopted and will lose if population criterion is used in its devolution scheme.

Notes :

1. Distance formula can be computed as : $(Y_h - Y_i)P_j / \sum_j [Y_h - Y_i]P_i$ where Y_i adn Y^h repesrent per capita SDP of the 'i' th andthe highest per capita SDP state respectively. P_i = the population of the 'i' th state. $(Y_h - Y_i)$ for the 'h' state is taken to be the distance between the highest and next highest per capita SDP.

2. In line with TFC's recommendations the fourteen major states are grouped into Low income states : M. P., Bihar, Rajasthan, Orissa and U. P.; Middle Income States : Tamil Nadu, West Bengal, Andhra Pradesh, Karnataka and Kerala, and High income states : Punjab, Maharastra, Haryana and Gujarat.

3. Other transfers include other discetiornary grants and loans including the finances from institutional agencies such as LIC, GIC and UTI to assist plan programmes, investment by Central Public Undertakings, Commercial Bank Credit and Private investment.

4. The population, distance, inverse and andjusted distance criteria of devolution are explained in the "Revenue Sharing under Alternative Criteria : A comparison" in the Appendix-4 of Tenth Finance Commission Report (December 1994).

Tenth Finance Commission and Orissa

ABSTRACT

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Orissa has been neglected in the fields of allocation of shares, natural calamity fund and debt relief. It is hoped that the Centre will take some remedial measures to help Orissa.

The Alternative Scheme of vertical devolution recommended by TFC for the period stretching upto 2000 is supposed to be adopted with effect from April 1996 after the amendment of the Constitution. The new scheme is an improvement over the earlier ones since it aims at pooling of all central taxes to the devolution pool. The increased ratios of 29% (26% + 3%) will enable the less advanced states like Orissa to get higher amount.

An Appraisal of Central Allocation to Orissa Under the Aegis of 10th Finance Commission

ABSTRACT

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There is great inequality in the levels of development between the regions in the country. Inter regional and intra-regional disparities have persisted over the years. Finance Commission is one of the instruments through which .vertical and horizontal imbalance are sought to be corrected through resource transfer from the Centre to the states in the form of shared taxes and grants in aid. Inspite of the role played by Finance Commissions, the regional disparity has continued to persist. Tenth Finance Commission has not improved the situation significantly.

The study has two main objectives :

(1) It seeks to analyse the various issues confronted by 10th Finance Commission, and

(2) It evaluates the impact of central allocation of funds on the development of backward regions, with particular reference to Orissa.

The author suggests that the Central allocation of funds has exhibited certain discerning features. The proportion of shared taxes and grants in aid has increased but the state's share of owned taxes has on the other hand remained low. The revenue deficit has mounted up. Similarly the debt position of Orissa is also serious.

The author suggests, therefore, the need for the state in increasing its own tax effort. Besides the state must also take proper initiative in the proper deployment of resources which is not taking place at present. The present index of backwardness giving more emphasis on population criterion be suitably modified to assist backward regions like Orissa.

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