



ORISSA ECONOMIC JOURNAL

VOLUME XIV

1981

NUMBER ONE

ORISSA ECONOMICS ASSOCIATION

MEMBERS OF THE EXECUTIVE FOR 1981

President-

Dr. Bibekananda Das
Professor of Economics
Berhampur University

Secretary-

Sri Bhabani Prasad Dash
Lecturer in Economics
Mahatab Road, Cuttack-3

Vice-President-

Sri Benudhar Mishra
Reader in Economics
Ravenshaw College, Cuttack

Asst. Secretary-

Sri Niranjana Misra
Ravenshaw College, Cuttack

MEMBERS:-

1. Professor D. Mohapatra,
Utkal University
2. Sri N. P. Patra, Reader in Econ.
Khallikote College, Berhampur
3. Sri J. P. Patnaik, Deptt. of Econ.
Sambalpur University
4. Sri K. N. Mohapatra,
Rourkela Evening College
5. Sri Manmohan Das,
M. P. C. College, Baripada
6. Sri Mohit Ku. Sarangi,
F. M. College, Balasore.
7. Sri B. K. Das,
Bhadrak College
8. Sri Subash Ch. Mohapatra,
V. Deb College, Jeypore,
Koraput
9. Smt. Monorama Mohapatra,
Ravenshaw College
10. Sri R. K. Choudhury,
Banki College, Banki
Cuttack
11. Sri R. C. Misra,
S. C. S. Evening College
Puri
12. Sri A. B. Sahu,
Reader in Econ.
Anandapur College, Keonjhar
13. Sri B. K. Mohanty,
Angul College, Angul
14. Prof. H. K. Das Gupta,
Head of the Deptt. of Agricul. Econ.
O. U. A. T. Bhubaneswar
15. Dr. G. N. Das,
D 8/ 1 Unit-9, Sahid Nagar,
Bhubaneswar.
16. Sri Binoy Bhusan Misra.
Secretary, G. C. I. I. Cuttack

All Communications be sent to :

B. P. DASH

Secretary, Orissa Economics Association
Mahatab Road, Cuttack

Membership Fee Rs. 15/- per annum.

ORISSA ECONOMIC JOURNAL

VOLUME XIV

JANUARY-JUNE 1981

No. 1

Editor :

Dr. Baidyanath Misra, M. A., A. M., Ph. D.

**PROFESSOR & HEAD OF THE DEPARTMENT,
ANALYTICAL & APPLIED ECONOMICS**

UTKAL UNIVERSITY

BHUBANESWAR

**ORISSA ECONOMICS ASSOCIATION
BHUBANESWAR**

CONTENTS

1. Presidential Address	<i>D. Mahapatra</i>	1
2. Report of the Secretary	<i>B. P. Dash</i>	12
3. Agricultural Development Income Distribution and Social Change in India.	<i>B. N. Misra</i>	15
4. A Critical Analysis of Indebtedness in Rural Sector of Orissa	<i>B. Bhuyan</i> <i>Mrs. B. Mohanty</i>	26
5. Annual Agricultural Credit Need of Sambalpur Estimates and Plan Fulfilment	<i>J. P. Patnaik</i>	36
6. Repayment Problems of Small and Marginal Farmers	<i>B. C. Parida</i>	46
7. Irrigation and Agricultural Indebtedness a case study in Salandi Command Area	<i>S. Mohanty</i>	54
8. Agricultural Indebtedness in Orissa	<i>R. Panda</i>	60
9. Rural Indebtedness of A Tribal Village in Mayurbhanj : Some Observations	<i>N. Nanda</i>	65
10. Agricultural Credit In Orissa institutions and Performance	<i>R. K. Pany</i>	68
11. District Credit Plan and Rural Credit in Ganjam District	<i>S. Mukherjee</i> <i>S. K. Panda</i>	75
12. Political Economy of Orissa and Rural Indebtedness	<i>G. B. Nath</i>	79
13. Credit Needs of Peasants with Special Reference to Tribals in Mayurbhanj District	<i>M. K. Sarangi</i>	80
14. A micro study of the Problem of Rural indebtedness with reference to the village Panada in Ganjam district	<i>P. K. Mahapatro</i>	81
Rapporteur's Report		82

OUR CONTRIBUTORS

- ★ Dr. Baidyanath Misra, is the Vice-Chancellor,
Orissa University of Agriculture & Technology, Bhubaneswar & Editor,
Orissa Economic Journal.
- ★ Dr. Benudhar Bhuyan, Assistant Director,
Farm Management Data Unit (W. B.) Orissa University of Agriculture
& Technology, Bhubaneswar and
Mrs. Bedabati Mohanty, Lecturer in Economics
B. J. B. College, Bhubaneswar.
- ★ Sri Jyotiprakash Patnaik, Lecturer in Economics
Sambalpur University, Burla.
- ★ Sri Baishnab Charan Parida, Professor of Economics,
College of Cost Accountancy & Management Studies, Cuttack,
- ★ Sri Sanatan Mohanty, Reader in Economics,
Bhadrak College, Bhadrak.
- ★ Sri Rajkishore Panda, Teacher Fellow, De pt. of Analytical &
Applied Economics, Utkal University Bhubaneswar,
- ★ Sri Narottam Nanda, Reader in Economics,
M. P. C. College, Baripada.
- ★ Sri Rajkishore Pani, Lecturer in Economics
Sundargarh College.
- ★ Sri Subhendu Mukherjee & Sri Saroj Kr. Panda, Lecturers in
Economics, Khallikote College, Berhampur.
- ★ Sri Mohit Kumar Sarangi, Lecturer in Economics,
F. M. College, Balasore.
- ★ Sri Golak Behari Nath, Lecturer in Economics,
Deogarh College, Sambalpur,
- ★ Sri Pradipta Kishore Mohapatra, Lecturer in Economics,
Khemundi College, Digapahandi, (Ganjam Dt.)

PRESIDENTIAL ADDRESS

" THE ECONOMISTS, THE ECONOMIC PROBLEMS, ECONOMIC THEORY & POLICIES "

D. Mahapatra

*Fellow Members of the Orissa Economic Association,
Ladies & Gentlemen,*

The Orissa Economic Association has done me great honour by electing me President for the current session. I fully realise that this is essentially an expression of your affection for me who has served as a teacher of economics in this State for the past thirty years. I sincerely thank you for the gesture. I have an odd feeling that I may not be really deserving the honour.

Being primarily interested in economic theory and policy implications, I have chosen to address you on the topic entitled "The Economists, the Economic Problems, Economic Theory and Policies".

Let me begin with a statement of late Lord Keynes. When Keynes retired from the editorship of the *Economic Journal*, he proposing a toast to the fellow economists, said, "economists, who are the trustees, not of civilisation, but of the possibility of civilisation". With that toast, Keynes showed the economists their aspirations as well as their limitations. It is not the economists who run the world. There is the vast body of civil servants, politicians, technocrats having competence in law, administration, technical know-how and management, who also play a key role in determining economic policies. In the making of economic policies, the basic choices are political and not necessarily restricted to an optimal use of resources in a technical sense. Policy-makers need economic counsel to clarify the implications of alternative courses of action; economists, to be useful, need a perspective of what is politically relevant and feasible. This two-way relationship calls for mutual understanding.

Economists, as a genre of social scientists, do not content themselves with a description of what they see. Instead, they examine the

Mr. D. Mahapatra, Department of Analytical & Applied Economics
Utkal University, Vani Vihar, Bhubaneswar-751004.

economic problems to discover their underlying characteristics and to find solutions of the problems. Economists, over the ages, have developed models about how the economy works that allow them to go beyond descriptions.

MAJOR ECONOMIC PROBLEMS

Poverty, unemployment, inflation, inequality, underdevelopment, cyclical fluctuations and the international economic disintegration are some of the major economic problems at present. Continued economic growth is a prime requirement if we are to deal with this set of problems. But the growth dictum is not without its limitations. To-day, we have begun to recognise the problems of pollution-generating growth and we are devising remedies for these problems on a national basis. Ahead, however, lies the much more formidable problem of a world in which growth may encounter ecological barriers, bringing the need for new political and economic arrangements for which there are no historical precedents.

BASIS OF SCIENTIFIC PROGRESS

There are two approaches to the study of development of ideas in a discipline. The first dwells on the dialectical sequence of change in the theories, concepts and analytical techniques which constitute core of the discipline; the second traces the historical process of change in the way successive generation of scientists have adopted their explanatory techniques to a solution of the problems. Philosophers of science concerned with how and why successive of generations of practising scientists adhere to, or rearrange, or alter the explanatory techniques in which they have been trained have used the term 'paradigm' to denote the doctrinal core that the majority of practising scientists are prepared to take for granted. Thomas Kuhn, in his book *The Structure of Scientific Revolution*, has defined a paradigm as a disciplinary matrix - "disciplinary" because it refers to the common possession of the practitioners of a particular discipline; "matrix" because it is composed of ordered elements of various kinds. With Kuhn's elevation of the concept of a paradigm to a key role in the theory of scientific progress, in which the normal cumulative advance is punctuated by revolutionary episodes defined as paradigm switches, it has become a somewhat controversial category. Kuhn's concept of a paradigm has been attacked as ill-defined. Those who prefer to stress the continuities rather than the discontinuities in scientific progress react particularly strongly against the notion of a

total paradigm - switch, and/or deny that it is ever possible to capture the full range of explanatory techniques available to a discipline at any one time in a systematic, coherent body of ideas.

Whatever may be the upshot of the debate on Kuhn's theory of scientific revolution, there is very little dispute over the fact that there have been ruling paradigms in economics in that there exists during a period an accepted, conventional set of theories, concepts and analytical techniques, and that there have occurred radical changes in the structure of economic theories to analyse and explain the prevailing problem situations.

PARADIGMS IN ECONOMICS

We can separate the history of economic theories into paradigm-like divisions that resemble the bounded inquiries of natural sciences. The medieval scholastics discussed the criteria of "just" prices at which commodities should sell. Their main concern was whether usury was in fact a sin? This view of the economic world was displaced by the mercantilists. Theirs was the period of warring nationalist monarchical states. For them the overriding question was how to increase national wealth and power and they generally advocated regulation of trade to achieve the goal. The classicals had no interest in the just prices of the medievalists or the national power and glory of the mercantilists. Their interest lay in understanding the economic processes, in particular the accumulation and distribution of national wealth. Smith spoke of the "invisible hand" to expand the wealth of nations. Ricardo wrote with equal force about the course of national economic growth, arguing that a growing population, pressing against limited fertile land, would drive up crop prices and divert the wealth of the country into the hands of the landlords. The classical paradigm was concerned with national economic growth and the fate of social classes in the course of national growth. The neo-classicals turned the focus of economic inquiry away from growth and class conflict into a study of the conditions of equilibrium and optimal resource allocation under competitive market conditions. The new paradigm explained many things that the classical one did not. It explained above all the working of the price system.

But just as the classical paradigm had dropped all interest in the medieval and mercantilist thoughts the neo-classicals paid little attention to questions of growth and class fortune that had pre-occupied the

classicists. Marx, in his turn, developed a paradigm of his own. He held the view that the central tendency of the economic system was not to a benign equilibrium; it is to a destructive contradiction. Competition is just a passing phase. As capitalism develops, large firms absorb the small ones - a process that Marx called "capitalist concentration". Monopoly capitalism replaces the competitive market. In this process, the firms, though large, become few and politically vulnerable. Meanwhile, the workers are paid but a small part of the value they create. And in consequence of their industrial employment they become disciplined, aware of the exploitation to which they are subject, and politically sophisticated—"socialised" as Marx said. So at a certain point in time these two great forces—the attenuated capitalist power and the disciplined workers meet, confront each other. As the inevitable consequence, the capitalist power is overthrown "socialism" the workers' state comes into being. A new era in the progress of economic theories was heralded by what is labelled the "Keynesian Revolution". Keynes shifted from a "micro" to "macro" perspective of the economic system. The neo-classical view of the world was a "micro" approach to the economic problems. The most striking result of Keynes shift from micro to macro perspective was his discovery that an economy that worked well at the micro level did not necessarily work well at the macro level. From the perspectives of the neo-classicists, there had been no recognition of the problem of mass unemployment or continuing depression. Keynes demonstrated that there could be equilibrium in the economy but with a very large amount of unemployment. This is the celebrated Keynesian theory of "unemployment equilibrium".

OPST-KEYNESIAN & RADICAL THEORIES : THE NEW PARADIGMS

The question arises : what paradigm rules economics to-day ? Economic processes change over time with change in economic, social and political institutions. Theories and concepts change because the nature of economic reality is changing. The Marxian paradigm has lost its relevance in the modern institutional setting. The development of the capitalist firm has not been as Marx foresaw. Capitalism has taken power from the capitalist and given it to its own "technostructure". In consequence, there has been a much less sharp confrontation with the workers than Marx thought would occur. Trade unions, on their part have become much less revolutionary. And unions and the modern welfare state have rubbed far more of the rough edges of capitalism than Marx ever imagined they could. Keynesian world view has likewise

undergone a sea-change. Keynes viewed a world of unemployment and depression. There was no inflation problem for him. The modern world is, in contrast, a world of inflation, recession and unemployment at the same time. The neo-classical paradigm is equally otiose. Their framework of the free competitive market does not exist at present. The large corporations, the trade unions and the government have robbed the market of its regulatory function. Each of them now set their own prices and escape the market system. The corporations set the prices of their products, the unions the wage of their members and the government the price of the goods and services it produces and supplies. Instead of prices being fixed by the impersonal market forces, what we witness is the phenomenon of "administered" prices. There is, to be sure, competition between the corporations in advertising, model changes, gadgetory and other things that persuade and lure the consumer. But the corporations don't cut prices. Anything that threatens the basic control over prices is banned, tabooed. This is the real manifestation of market power. The government modifies, in its turn, the market system in no small way. It establishes minimum price for farmers. It sets minimum margins for retailers. Where workers do not have unions, the government establishes a substitute in the form of minimum wage. The minimum wage is the poor man's union. All these developments have combined to impair or destroy the neo-classical competitive market framework. It is this contrast between theory and its relevance that underlies the current crisis in economics. Fortunately, economics encompasses more than just a set of axiomatic statements about resource allocation under competitive conditions. A large number of economists, disenchanted by the vacuity of neo-classical theory have come to disdain the use of any conceptual framework, preferring to work instead as pure empiricists. Some of the quantitative studies they have produced on demand elasticities, cost functions, mark-up pricing, the functional distribution of income, the labour component of foreign traded goods have not only added significantly to our knowledge about the economy, but have also helped to reveal the considerable disparity between theory and reality. A group of other economists have responded to the vacuity of the conventional theory in quite a different way. They have attempted to reformulate the core of that theory in a more realistic manner. This new theory has been spearheaded by the economists of the Cambridge School (England) and by the Radical Political Economists in the United States.

ELEMENTS OF POST-KEYNESIAN THEORY : THE CAMBRIDGE SCHOOL.

The post-Keynesian theory views economic growth and income distribution as being determined by the rate of investment in the economy. This is in sharp contrast to the neo-classical theory in which relative prices are considered the key variable. The post-Keynesians believe that in a dynamic, expanding economy, the income effects produced by investment and other sources of growth far outweigh the substitution effects resulting from price movements. The post-Keynesians view the economic system as being constantly in motion. This view of secular movement of the system is, once again, in sharp contrast to both the general equilibrium and partial equilibrium versions of the neo-classical theory in which the system is always regarded as coming to rest at some fixed level of activity even if a change occurs in the determinants or parameters of the model. The post-Keynesian theory recognises the key role of credit and other monetary institutions in the dynamic process of growth and income distribution. This is, again, in contrast to the neo-classical model in which money does not matter in so far as real output is concerned but only matters in so far as secular rate of inflation is concerned. Finally, the post-Keynesian theory recognises the existence of multinational corporations and the trade unions and their power to 'administer' both prices and wages. This microeconomic base of the post-Keynesian theory is in sharp contrast to the neo-classical model, the conclusions of which depend critically on the assumption that all suppliers of goods and labour services are price-takers in competitive markets.

THE RADICAL CRITIQUE

The radical economists point out that the neo-classical theory carries out most of its analyses in the framework of a capitalist society, with little consideration given to alternative methods of organising economic activity. Such an approach implies that the relationships obtaining in a free market economy would also guide events under any other set of social institutions. The approach fails to consider the possibility of the existence of alternative optimum positions under a different form of social organisation. Besides, the neo-classical economists distort reality by assuming implicitly that a fundamental harmony exists both between nations and between groups within one country. According to the radicals, a harmonious society based on private ownership of the means of production is just impossible because the interests of different classes based on the differential ownership of the various factors of production diverge so that each seeks to develop economic and political leverage, power and weight

to achieve its objectives. Finally, it is pointed out that by analysing the economic problems in the context of a perfectly competitive market model, the conventional economists fail to recognise the role of power structure which to a large extent governs and underlies most of the contemporary economic problems.

All said and done, the neo-classical theory, even on its own terrain of efficient resource allocation, becomes a *non-sequitor* when its logic and its assumptions are critically examined. De Graff in his *Theoretical Welfare Economics*, formulated a list of seventeen highly restrictive conditions, all of which must be satisfied before the optimally efficient allocation of resources envisaged in the neo-classical model is achieved.

These include the most improbable assumptions such as :

- i) An individual's welfare is identical with his preference ordering;
- ii) productivity is completely unaffected by the existing distribution of wealth;
- iii) neither risk nor uncertainty is ever present and
- iv) all capital goods and all consumer goods are infinitely divisible.

De Graff aptly commented that "the measure of acceptance this theory has now among professional economists would be astonishing were not its pedigree so and long respectable". Many economists, while admitting that optimal allocation of resources is hardly attainable in actual practice, however argue that judicious state intervention can move economies towards this position. But the theory of Second Best, developed by Lipsey and Lancaster disproves such a contention. To sum up the radical position, these economists believe that a political economy relevant to contemporary society and its problems must recognise the existence of power structure in society. The market mechanism is merely one possible method of ordering priorities and social decision-making. Alternative methods of organising economic activity and social decision-making to deal with current economic problems need careful examination.

POLICY IMPLICATIONS : THE NEO-CLASSICAL vs. POST-KEYNESIAN

What are the implications for public policy following from the two paradigms—the neo-classical and the post-Keynesian? In the field of macro-dynamics, neo-classical analysis lends itself very poorly to policy prescriptions. Since it does not deal with business cycle, or allow for unemploy-

ment, it is unable to formulate anti-cyclical or full employment policies. Again, since growth rates in neo-classical theory are ultimately determined by factors exogenous to the model, it cannot formulate policies for influencing growth rates either. Post-Keynesian macrodynamics, in contrast, stresses to key role of investment in generating cycles as well as in determining growth rates. It, therefore, suggests that policy measures should be directed towards steady and rapid growth of investment at high levels to achieve high and steady rate of growth of output. The post-Keynesian economists are very much skeptical that current policy measures pursued by governments to deal with inflation could ever provide any long-run solution. Governments are pursuing restrictive monetary and fiscal policies along with temporary wage and price controls. This is in consonance with neo-classical anti-inflationary policy prescriptions. But the result is that the countries following these policies find themselves doubly cursed with high rates of unemployment and low rates of capacity utilisation. Tight monetary and fiscal policies reduce aggregate demand. If the market were still functional, prices would fall and inflation would come to an end. But now prices are administered, controlled. This control is not effected by reduction in effective demand. Hence we have the worst of two worlds- both inflation and unemployment at the same time. Some economists have come forward with what they call "indexing" as a solution to the current inflationary problem. Indexing implies that everybody's price or income should go up with inflation. It's no remedy : it is a surrender to inflation. Economists should produce meaningful remedies and not evade problems. The post-Keynesians put forward a policy-package that would permit full employment, price-stability and growth. They favour stimulative fiscal and monetary policies coupled with an incomes policy to achieve the goals of full employment and price stability. The form that incomes policy must take would, in the opinion of the post-Keynesians, be dictated by the growth goal. Growth must be consistent with high levels of employment. And this requirement calls for relatively flexible price in so far as goods and services are concerned. This is not because of a felt need to allow businesses to raise prices and shift the distribution of income in favour of the entrepreneurial class. The reason is that in large corporations, pricing policy is related to investment policy. When firms need to increase, investment outlays and lack the internal funds to do so, they tend to raise prices in order to assure the necessary financing. Flexible goods price allow this important allocative mechanism to work in the interests of economic growth. What must, however, be controlled are wages. But, in the interests of equity and political acceptibility it is necessary to limit that part

of profits that is not ploughed back to financial investment. This requires policies for taxing dividends, corporate salaries and perquisites at a rate that keeps the growth of these forms of income in line with the growth of wage income.

THE INTERNATIONAL ECONOMIC SCENE

With the difficult challenges of high prices of crude petroleum, recession, inflation, collapse of the Brettonwoods system, balance of payments deficits and the developing countries' demand for a "New International Economic Order" the over-all picture is one of a troubled world economy. The world has vastly changed since 1973. There is a need to evolve common views on realistic imaginative concept of managing an inter-dependent world economic system. Only a few years ago, we were accustomed to looking at the free world economy as split between the rich in the North and the poor in the South. This perspective is no longer valid. The world is inexorably interlinked to-day for better or worse. What happens in the Northern economies affect the fortunes of the South as much as the events in the South produce impacts on the Northern countries. A major test of statesmanship to-day lies in the ability of Governments- both in the North and in the South- to recognise the fact of global inter-dependence and shape their policies accordingly. There is the crying need for a joint striving to substitute co-operation for confrontation in negotiating a better world economic order will increase the stability of international relationships and help all countries rich and poor alike.

A central fact of the world monetary scene to-day is that the development of capital mobility has rendered the continued use of adjustable peg impracticable. The reason is : under capital mobility exchange markets can be in equilibrium only if all existing stocks of the several currencies are willingly held, which requires either that the stocks themselves be adjusted according to the gold standard "rules of the game" or that the expected yields of different currencies be adjusted in order to satisfy the conditions of the asset market equilibrium. Governments the world over are not willing to play the gold standard game for the compelling reason that it disrupts internal stabilization policy. And expected yields cannot always adjust because acceptable interest rate differentials cannot offset anticipations of discrete changes in exchange rates and exchange rates cannot always be allowed to adjust without making a mockery of the very idea of a par-value system. Hence, as capital mobility develops, the adjustable peg is bound to generate a series of ever more disruptive crises. This basic inadequacy of the

Brettonwoods system was the principal reasons for its collapse. The major benefit of the managed floating system is that it provides a viable crises-proof adjustment mechanism that the Brettonwoods system lacked. It has also defused the problem of distributing the obligation of initiating the necessary adjustments. But at the same time, the managed floating is not without economic costs. There has been a record number of widely divergent exchange rate movements since the adoption of the system in March, 1973. Just how costly this exchange rate volatility is in impeding international transactions is very much open to question, but it strains credulity to imagine that it does not have any anti-trade bias at all. While it is true that the world would, perhaps, never go back to an exchange rate regime of par values with fixed margins, there is no doubt that in the years ahead we shall move in some ways to a more managed international monetary system. Bagehot's statement that "money does not manage itself" is certainly relevant in the international sphere. Since 1974, the developing countries are voicing their increasing displeasure with the state of the world economy as it affects them and the call for a "New International Economic Order" is persistent. There is the need for a balanced approach to improve international economic relations between the industrialized and the developing countries. As exporters of industrial raw materials, minerals and food stuffs, the developing countries as a group are interested in the prices of their export products and the stability of their export earnings. They require policy measures which will enhance their opportunities in fields of international trade, finance, investment and technology. These measures need not necessarily imply special advantages but rather the removal of handicaps and obstacles. Securing full and effective access to the markets for commodities, capital and scientific and technological knowledge in the advanced countries is an important element in a coherent policy of improving economic opportunities for the developing countries. In the task of better management of the world economic system and solution of the problems that plague the system, efforts must be directed (1) to prevent countries from adopting beggar-thy-neighbour policies, i. e. depressive economic policies as well as outright trade restrictions, (2) measures to develop new energy sources and conserve on current consumption; (3) efforts to press upon OPEC countries the economic and political consequences of their price policy in respect of crude oil and to convince them to assist directly those countries that have been most severely affected by high oil prices and (4) to provide financial support to countries which merit it by adopting balanced, imaginative and internationally constructive economic policies.

SUMMING-UP

That I have attempted so far is to present a quick resume of how economic ideas have developed and how economists have responded in the face of prevailing problem situations. It is needless to over-emphasize the point that before any suitable policy response can be formulated to achieve any desired end, a sound body of theory must be developed that has some explanatory power and that can give policy-makers some insights into the way in which economies actually evolve over time. Much of the inadequacy of the conventional economic theory to explain the contemporary economic problems is due not to professional incompetence but the fundamental assumptions that underlie it and to the criteria by which an economic problem is defined.

REFERENCES

1. Alfred S. Eichner, "Introduction",
A Guide to Post-Keynesian Economics, Alfred S. Eichner (ed)
2. B. Burkitt, "The Contemporary Crisis in Economic Thought: A Radical Analysis",
The Indian Economic Journal, Vol. 27, No. 3, January-March, 1980.
3. Drik J. Wolfson, *Public Finance and Development Strategy*.
4. Emile Van Lennep, "New Approaches to International Cooperation in a changing and inter-dependent World" *Atlantic Community, Quarterly* Fall 1976.
5. Heilbroner and Thurrow, *The Economic Problem*.
6. J. K. Galbraith and Nicole Salinger, *Almost Everyone's Guide to Economics*.
7. John Cornwall, "Macrodynamics",
A Guide to Post-Keynesian Economics, Alfred S. Eichner (ed)
8. John Williamson, "The Benefits and Costs of an International Monetary Nonsystem"
Changing Patterns in Foreign Trade and Payments, Bela Balassa (ed)
9. J. de V. Graff, *Theoretical Welfare Economics*.
10. Lawrence A. Veit, "Troubled World Economy", *Foreign Affairs*, January, 1977.
11. Phyllis Deane, - *The Evolution of Economic Ideas*.
12. R. F. Harrod, - *The Life of John Maynard Keynes*.

REPORT OF THE SECRETARY

Mr. President, Esteemed Chief Guest, Chairman, Reception Committee, Mr. Vice President, Local Secretary, Fellow Delegates, Ladies and Gentlemen !

I welcome you all to this XIV Annual Conference of the Orissa Economics Association. This year there has been delay in organising the Conference. Originally, the Conference was scheduled to be held in Rourkela Municipal College. But at a very late stage, the organisers there, declined to hold the Conference. This Conference would not have been possible but for the kind interest evinced by Dr. K. Kanungo, Vice-chancellor, QUAT who happens to be Chairman, Reception Committee, and the invitation of the Department of Agricultural Economics. I take this opportunity to express my gratitude to Dr. K. Kanungo and his colleagues.

The Association was formed in 1968 with the objective of organising forums for discussion on crucial economic issues of the State, improving the standard of teaching in Economics and stimulating research in different aspects of the discipline, having relevance for the State. Since its inception the Annual Conference has been the main forum of the Association to discuss the various economic problems of Orissa. The Association has not been able to organise refresher courses, workshop, seminars etc, primarily for financial handicaps.

Orissa is rich with abundant natural resources. But poverty is the stark reality in the state. More than 80% of our population live below the poverty line. The paradox of 'poverty in the midst of plenty' is well applicable to our state. Again, poverty and unemployment mostly concentrate in the rural landscape. It is expected that the twin problems of poverty and unemployment can be effectively tackled through the policy of rural industrialisation. Here comes the role of 'Appropriate Technology'. The delegates in this Conference will examine the pros and cons of 'Appropriate Technology for Rural Industrialisation' and will reach certain settled conclusions. My esteemed friend Shri B. K. Mohapatra, Special Officer, Industries Department has agreed to present a key paper on the subject. I take this opportunity to express my sincere thanks to him.

The other subject, which is no less important from the stand point of the economy of the State, is the 'Problem of Rural Indebtedness in Orissa'. Dr. Chakradhar Misra, Additional Secretary to Government of Orissa, Planning and Coordination Department has given his kind consent to present a lead paper on the subject and I express my gratefulness to him.

In this Conference, a symposium will be held on 'Agricultural Development, Income Distribution and Social Change'. In the context of imbalance in Agricultural development and skewed distribution of income, the subject assumes great significance. I am extremely grateful to Dr. Baidyanath Misra, Professor & Head, Department of Analytical and Applied Economics, Utkal University for his kind consent to present the key paper on the subject. Let me briefly place before you about the membership and funds of the Association.

MEMBERSHIP

During 1979-80, two hundred thirty four teachers have been enrolled as members of the Association. Shri B. K. Mohapatra, IES., Shri K. C. Rath, Shri D. Pal from Salepur College, Dr. G. S. Das, Smt. Sashikala Patnaik, and Late Vijayalaxmi Mishra from G. M. College, and Dr. Pravat Kumar Patnaik, have been enrolled as life members. Smt. Jharana Ray from Ravenshaw College and Sri P. C. Mohapatra have also been enrolled as a life member during 1980-81.

FUNDS

The amount received from membership fees is very much limited. During 1980-81 the Association has received a grant of Rs. 4,000/- from the Director of Public Instruction, Orissa, and Rs 4,000/- from the State Youth Welfare Board. I am thankful to the Director of Public Instruction, Orissa and to Dr. Baidyanath Misra, the Joint Secretary, State Youth Welfare Board for the benign help

I take this opportunity to express my thanks to the Local Secretary, Prof. Das Gupta, the Dean of Students Welfare, Dr B. Mohanty, Dr. B. Bhuyan and members of the staff of the Department of Agricultural Economics for their untiring effort to organise the Conference. I am grateful to Dr. S. Misra for readily accepting our invitation to inaugurate the Conference.

I am grateful to our President. Prof. D Mohapatra for his guidance, timely advice and avid interest in all matters of the Association. I am thankful to all members of the Executive of their active cooperation. I am

especially thankful to Shri Binoy Bhusan Misra, for collecting advertisements for our journal. I am extremely grateful to Dr. Baidyanath Misra, Dr. D. C. Misra and Dr. K. M. Patnaik for their august presence, which is a source of inspiration for all of us.

I am thankful to Prof. B. C. Parida and Shri S. N. Misra for acting as Rapporteurs in the last Conference. I am thankful to Smt. Manorama Mohapatra for her cooperation and help in many ways. I am immensely indebted to Dr. Baidyanath Misra for his ungrudging help and guidance in all matters of the Association. I am thankful to all my colleagues in the Department of Economics, Khallikote College & Ravenshaw College for their unstinted cooperation. I am thankful to you all, ladies and gentlemen, for giving me a patient hearing.

B. P. Dash
Secretary

Agricultural Development, Income Distribution and Social Change in India.

B. N. Misra

Since the beginning of fifties, a systematic attempt has been done to increase the productivity of agriculture and bring about some structural change in the land-man relationship. There is no doubt that during this period agriculture has made some spectacular progress in a few selected regions and a few selected crops. Even the increase in aggregate production has not been unsatisfactory. A few years ago, it was contended that India could never become self-sufficient in food and feed its teeming millions. With the green revolution, the picture has changed considerably and the country is now the fourth largest grain producer in the world. It has built a large inventory which means that one or possibly two consecutive droughts should not mean a serious famine of the proportions to which history had accustomed us.

In spite of this increase in agricultural production, it is said that the new trends in agricultural development have neither solved the problem of poverty or unemployment, nor helped to achieve an equitable system of distribution in rural areas. We will consider some of these controversies in order to consider the impact of agricultural development on the economy. First is the question of low priority accorded to agriculture in the allocation of planned resources. Related to this is the problem of terms of trade between agriculture and industry. Third is the economic and social effects of green revolution. In the backdrop of this controversy, the question of institutional change looms large in the analysis of agricultural economy of India.

It is not possible to analyse all these problems in a comprehensive manner. Further on many of these issues research findings are not definite. Since India is a vast country with heterogeneous characteristics, conclusions applicable to one part may not be applicable to another part. However, we will only indicate some of the general trends so as to show to what extent agricultural development has changed the life of the people in India.

To begin with we consider the question of resource allocation to agriculture. It is contended by some economists that allotment of resources to agriculture during the first three planes was inadequate to bring about a substantial change in agriculture. During this period, the percentage of resources allocated to agriculture varied between 11 to 15 excluding investment in irrigation. If irrigation is included in agriculture, it varied between 20 to 31 per cent of total allocation. It cannot therefore be said that resource allocation to agriculture was inadequate in the initial stage of development. It is true that a large part of investment in irrigation was confined to multi-purpose riverdams which were not only costly, but which also delayed the accrual of benefits of irrigation due to long gestation period. It can also be said that only the farmers who constructed field channels derived benefit from such irrigation works. Had the emphasis been laid on minor irrigation works, the benefits could have been wide spread. All the same it is worth mentioning here that higher investment on agriculture upto the middle of sixties could not have substantially changed the agricultural scene in India. Agricultural production is limited by the constraints of technology and since upto 1956-67, there was no technological break-through planners cannot be blamed for the inadequate success of agricultural development during the period.

During the later period, investment in agriculture and irrigation did not materially differ from the earlier period. It varied from 21 per cent to a little more than 23 per cent. However, in the fifth plan some additional investments were made in rural areas which indirectly benefited agriculture. The total outlay in agriculture during the fifth plan came to about 30%. It can therefore be said that total outlay in agriculture was not inadequate during the plan period. The development of agriculture does not only depend on investment in agriculture. Investment in industries, infrastructure and other social services also contributes to the development of agriculture. Allocation of funds of agriculture should not therefore be considered in isolation from funds allocated to other sectors of the economy which contribute to agricultural development.

But the more important question is : whether the new technology which ushered in towards the end of sixties substantially increased agricultural output. Most of the evidences do not prove this. According to Griffin, green revolution has not brought about any significant change in the rate of growth of agricultural output in most parts of the world¹. Srinivasan points out that green revolution is only a wheat revolution².

Hanumantha Rao has shown that green revolution has increased output but not very significantly. According to him, between 27 and 41 percent of additional output between 1964-65 and 1970-71 can be attributed to green revolution.³ Desai's study also shows the same result. All this, means that the increase in agricultural output is not so much due to technological change, but due to the trend rate of growth of agriculture in the fifties and sixties.

The reasons for this lack of a breakthrough in agricultural production are not far to seek. Firstly, the increase in yield (that is possible under ideal trial conditions) cannot be realised under field conditions. The constraints are many. Secondly, the technological breakthrough in HYV seeds is more in evidence in case of wheat rather than in other field crops. Rice which is a major crop of India has not shown the same resilience as wheat. Hopper and Freeman have attributed a part of the failure of rice to wider variations in local conditions that influence the cultivation of rice⁴. Thirdly, the success of HYV depends on the application of inputs on recommended doses. The new inputs are complementary and the resulting increase in output depends on the extent to which the new practices are used by farmers. Most of the farmers who adopted HYV did not use the new inputs in recommended doses⁵. Fourthly, the dependence of the new technology on the availability of water underlines an inherent tendency towards limited and regionally unequal growth. This is inevitable when you rely on a water-intensive technique in a land that depends on the vagaries of the monsoon.

Another important question is the impact of green revolution on stability of agricultural production. Sen and Rao point out that the green revolution has been accompanied by increased instability⁶. HYV seeds have been used more widely in Rabi than in Kharif season. This has tended to increase the rabi output and to lead to a diminution in the kharif-rabi seasonality pattern in the production of food-grains. We can therefore conclude by saying that though green revolution has increased the output of certain crops and productivity in certain areas, it has not brought about an over-all change in the agricultural economy of the country nor has it brought about any stability to agricultural production.

Related to the problem of investment and production in agriculture is the question of terms of trade. Economists like Asok Mitra and Ved Gandhi have argued that agriculture has been lightly treated in India.

Their contention is that though quite a lot of resources has been channelised to agriculture and number a of subsidies given to the agriculturists, the share of agriculture in tax revenue has been lower than its share in resource allocation and national output⁷. The Committee on the Taxation of Agricultural Wealth and Income also points out that there is considerable amount of tax potential, both in terms of income and wealth in the rural sector that is exempted from tax liabilities.

On the other hand Lipton and Shetty have given opposite arguments by raising the question of fiscal equity between agricultural and non-agricultural sectors on the ground of per capita income and price differential of both the sectors⁸. There is no doubt that the average agricultural incomes are lower than the non-agricultural incomes, indicating a lower taxable capacity, yet there is considerable inequality within the agricultural sector which justifies higher tax potential.

But in regard to terms of trade between agricultural and non-agricultural sector, one cannot come to any definite conclusion. Apart from the fact that there is a great deal of controversy regarding the meaning of ideal terms of trade, the result also becomes different in different periods. Dantwala and Thamarajakshi have shown that prices of agricultural goods were higher than industrial goods upto the middle of seventies⁹. In recent years, however, this trend has been changed and the terms of trade have moved against agriculture. The ratio of the index of agricultural prices to that of the prices of the manufactured products was 97.5 in 1977-78 but slipped to 95.8 in 1978-79 and further to 87.6 in 1979-80. In the seven months of the current financial year it dipped further to a low of 80.8. What is worse is that the ratio declined from 82.6 in April 1980 to as low as 76.6 in September 1980.

Although the prices of agricultural products have all along been moving upward except in 1978-79, they have not kept pace with the rise in the prices of manufactured products. Though the price index of agricultural products rose by a hundred per cent over the period from 1970-71 to 1980-81, that for manufactured products increased by one hundred and fifty per cent during the same period. If the above data are refined by making use of farm harvest prices instead of the wholesale prices of agricultural commodities the deterioration in the terms of trade of farm products would be seen to be even greater than indicated above. All this shows that in the process of development, the industrial sector has derived more benefit than the agricultural sector.

Again, what is more important is that in the agricultural sector, the rich farmers have derived more gain than the small farmers or agricultural labourers for the following reasons :

(1) Firstly, it is pointed that the new technology is subject to increasing returns to scale. While under traditional technology, a small farmer can secure higher rate of yield per acre than large farmers by intensive use of labour, in new technology, a large farmer can derive more gain by the application of a number of inputs which are complementary to each other. But while the traditional in-puts are less expensive, these inputs are more expensive. For example, labour in India is abundant and therefore has low opportunity cost. But the new inputs are mostly of manufactured origin and more expensive than human and bullock labour. Again HYV seeds require adequate supply of water to enable the plant to absorb the nutrients in concentrated form. Costs attached to irrigation are quite heavy both in the shape of capital costs and working expenses. It is therefore said that though the new technology is size neutral, it is not resource neutral. As such, the large farmers who have greater access to credit facility can derive more gain than the small farmer in modern agriculture.

Secondly, the small farmer is more sensitive to risk than the large one. Even though the new technology is more productive than the traditional one, the small farmer is not in a position to take such risk by investing more capital in land due to smaller margin of his savings. So far crop insurance has not been introduced in India to ward off such risks.

Thirdly, the new technology has induced the large farmers to reclaim land previously leased out under tenancy agreements, which has been made profitable from the higher returns from the new technology. The small farmer has been increasingly pushed into the ranks of the landless labourers. All this implies that the large farmer has derived more gain not because he is progressive, but because he is rich and the institutions created for the adoption of new technology provide more facility to him to purchase the inputs required for the adoption of new technology¹⁰.

Again, with regard to the effect of new technology on regional imbalance, it can be said that new technology has provided more benefit to the irrigated areas and especially to wheat areas. Since new technology is dependent on irrigation and there has been greater breakthrough in what technology, the new technology has been more successful in Punjab, Haryana & some other parts of India. Other parts have remained more or less traditional.

Some of the recent data show to what extent the rich and middle peasants have benefited from the new technology. The class of capitalist farmers includes an estimated 15 per cent of the rural households with landholding of about 8 acres (on the lower rung) and above on all India basis. They comprise about 23.5 per cent of the total population, but they hold around 70-80 per cent of total assets. They control an estimated 70-80 per cent of the total land area.

In 1971, according to a study, the 15 per cent richest rural households were responsible for at least 55 per cent of the gross capital expenditure in farm business and 59 per cent in non-farm business. This study further reveals that in the more modern inputs of farm business, their dominance was still much higher- 68 per cent of all expenditure of agricultural implements, 64 per cent of that on wells and 78 per cent on other forms of irrigation. They were responsible for 67 per cent of fixed capital formation on farm business as a whole and 82 per cent of that on improved agricultural implements.

The middle peasants are estimated at around 18 per cent of the rural households. They aspire to become rich and generally gang up with them politically to fight the industrial bourgeoisie on the one hand and agricultural labourers on the other.

These two classes are the beneficiaries of technological progress in agriculture. In the early 60s, India had 37 million hectares of land under irrigation with new areas being added at an average rate of 1 million hectares a year. To-day irrigation covers 55 million hectares and is being extended at an annual rate of 2.5 million hectares. Consumption of fertilisers has gone up from 2 million tons to 4.5 million tons during the same period. And so on. As a result of all these improvements production of food grains (from 108 million tonnes in the early 60s to 130 million tonnes towards the end of seventies), cotton (from 5 million bales to 7.5 million bales during the same period), sugarcane from 13 million tonnes to 19 million tonnes during the same period) etc. have substantially increased. Much of this prosperity has gone to these above two classes. Frankel's study of the five IADP districts, Ludhiana, West Godavari, Thanjavur, Palghat and Burdwan shows that in each district, while there was evidence that small farmers had made some limited gains, the gains made by large farmers, especially those owning land over say 10 to 20 acres or more, were very much larger¹¹. Thus the green revolution has increased the gap between the rich and poor in the rural sector, by channelling the benefits to the rich farmers at the expenses of the small peasants and the landless labourers.

2) How the deprivation is growing at bottom is indicated by the fact of the rising number of agricultural labourers. All the people in the rural are not farmers. Agricultural labourers represent nearly 60 per cent of the rural families and 51 per cent of the population. According to the definition of the 1974-75 Rural Labour Inquiry, half of these 60 per cent depend on manual wage labour. The other 30 per cent are the 'poor peasants' whose land holdings average between 0.01 and 2.5 acres and who, therefore depend substantially and also permanently on wage labour. And what is more, in rural India, the proportion of agricultural labourers is rising. Though there are definitional problems in using census data, agricultural labourers were 16 per cent of the rural work force in 1951 and 31.1 per cent in 1971. Due to rigidity of wage and high rate of inflation, the real income of agricultural labourers and 'poor peasants' has been substantially reduced. Over the years, agricultural wages have remained more or less stagnant in most of the States. There is no automatic linkage with the cost of living for these wages as there is in the case of industrial workers. This is apart from the fact that in some States, farm labourers are poorly paid and the Agricultural Wages Act regulating their wages is observed mainly in the breach.

3) The effect of new technology on employment does not also seem to be very promising. In this context, we have to consider the impact of mechanical technology and biological technology. The biological technology is likely to generate more employment. The seed-fertiliser technology is land saving and labour absorbing. Particularly if biological technology introduces better cultivation practices, such as, more careful planting, better weeding etc. there is increased demand for labour. Similarly, by increasing the yield per acre, the new biological technology requires more labour at the harvest time. Again, if this technology introduces multiple cropping, the demand for labour over the year will increase by reducing the seasonal instability in the demand for labour. On the other hand, Raj argues that if the new technology substitutes pump irrigation for surface irrigation to obtain better control, it may reduce the demand for labour¹². However, it can be safely said that biological technology has a tendency to increase employment opportunities. The National Commission on Labour has estimated that intensive cultivation may provide employment to about half the additional labour force in agriculture.

But with regard to mechanical technology, the impact on employment is uncertain. To begin with, new technology has a tendency to promote

mechanisation. Since the new technology is more expensive than the traditional and is more variable in yield, the farmer can be able to secure more profit and reduce risk by introducing mechanisation. For example, substitution of surface irrigation or uncertain rainfall by tube well irrigation will increase profit and reduce risk. Similarly, in order to shorten the time interval between different crops in case of multiple cropping, it will be worthwhile to introduce tractors. Chaudhury therefore argues that the very dynamic possibility of increasing yields may itself encourage mechanisation¹³. Further, to avoid labour troubles, machines may be preferred. Machines are less troublesome to handle than labourers.

With regard to the impact of mechanisation on employment, the evidences are conflicting. In a study relating to Punjab, Hanumantha Rao points out that while tractors displace labour, they also encourage labour use indirectly so that there is very little net effect on employment from tractorization¹⁴. A study by NCAER also indicates that while tractors by themselves do not displace labour, the combined operations of tractors and threshers have that effect¹⁵. Wolf Ladejinsky points out that the widespread experience of other countries reveals that as agricultural technology grows in sophistication it leads to less employment of labour¹⁶. A study of mechanised and non-mechanised farms around Delhi by the National Productivity Council has shown that labour displacement as a result of mechanisation is marginal and is more than offset by the increase in cropping intensity. Over the long-term, mechanisation generates greater employment because multiple cropping which mechanisation will make possible by accelerating the whole tempo of agricultural work would triple and even quadruple the number of field operations¹⁷. The Viswa Bharati Agro-Economic Research Centre pilot study in Purnea district of Bihar also conforms this¹⁸.

All these studies indicate that mechanisation in the initial stage may decrease the demand for labour. But the overall impact over the long run may increase the demand for labour. However, the magnitude of increase will depend upon the actual increase in the intensity of cropping and nature of multiple cropping. Since the intensity of cropping and nature of multiple cropping have not substantially increased in India during the post-Green Revolution period except in some regions. The extent of increase in employment has not kept pace with the increase in work force dependent on agriculture.

(4) Usha Patnaik argues that the new technology has usher in a class of capitalist farmers in place of feudal proprietors of land or a mere peasant¹⁹. Capitalist farming is generally characterised by four

characteristics : (a) production for the market, (b) use of wage labour, (c) mechanisation, and (d) reinvestment of the surplus within the farm. According to her capitalist farming in a transitional stage may not display all these characteristics. And therefore she notices the beginning of capitalist farming in India. However, we can say that wherever the new technology has been widely adopted like Punjab and Haryana, capitalist farming is in evidence. But by and large, the total area covered by new technology in India is limited and therefore the magnitude of capitalist farming is narrow. What will happen in future is anybody's guess.

(5) It is conceded by most of the economists that without a radical change in the system of land ownership and land use in rural society, the benefits of technological progress cannot be distributed equitably. The plan documents enumerated several policy measures to improve the rural society. They were (a) abolition of intermediary tenancy, (b) redistribution of land under a ceiling legislation laying down the maximum amount of land to be held by cultivators, (c) Consolidation of small holdings to counter one of the effects of excessive fragmentation of land, (d) security of tenure for the tenants and (e) reasonable, non-penal rates of rent.

The only part of the programme which was fully implemented in the early part of fifties is the abolition of intermediary tenancy. But it did not diminish the importance of the absentee landlords in the rural areas. Firstly, they were compensated for the estimated value of their land. Secondly, since ceiling laws were not enforced, the intermediaries were converted as big landowners. A new rural elite was created in the rural society. And because of the increased productivity of new technology, these land owners reclaimed land for their own cultivation. Thus there was no improvement in the distribution of surplus land. There was also considerable amount of insecurity of tenure and continued high level of rent. Ladejinsky has documented many such cases in his study²⁰. The consolidation of holding did not make much headway.

The present agricultural position can be summarised as follows. We have now three broad classes of agriculturists in India. There are the land-lord class whose chief characteristics are that they lease-out land and that they deem below their dignity to work physically even in their own farms. They supply only non-manual labour to agriculture. There are some landlords who do not lease-out any land. But of those who cultivate their own land, only a small percentage of their men-folk provide manual

labour to their own farms. These are managerial farmers and their productivity is extremely low. But since they belong to the elite group in the village, the benefits of agricultural development programme mostly accrue to them.

The next in the hierarchy is the middle peasantry. They (both male and female) do manual work in their own farms, but deem it below their dignity to go to work for others. A significant proportion of them also hire-in labour. They somehow manage to apply improved practices in some part of their land increase the productivity of agriculture. But they tell harrowing tales of their bitter experience of governmental and non-governmental agencies created to provide assistance to agriculture. They do not receive seeds, fertiliser, insecticides, loan or even irrigation water in time and invariably pay bribes to receive what is their due. This takes away all their zeal and interest in agriculture. These are the reluctant farmers of the country on whom the whole agriculture development depends.

Then we have the agricultural labourers and marginal farmers. They not only work on their own farms, they also work for others. They own small bits of land, lease in tiny plots and try to get as much as they can from land only through physical labour. Since they have no chance to apply modern technology, their per capita productivity is extremely low.

This semi-feudal agrarian structure stands in the way of agricultural development in the country. The upper landlord class have the advantage of the traditional heritage and social dominance. They have now acquired political patronage. As such they are not interested to improve the economic condition of the poor. If the poor improve their economic condition, the landlords will fail to utilise their hired labour for their agricultural operations. The middle peasantry cannot improve their position due to resource constraint. The dice is loaded against the agricultural labourers. And so the old system of rural exploitation and mass poverty continues inspite of technological development in agriculture.

REFERENCES

1. Griffin, K (1974), *The Political Economy of Agrarian Change*, Macmillan, London.
2. Srinivasan, T. N. (1972). *The Green Revolution or the Wheat Revolution*, Indian Society of Agricultural Economics.
3. Rao, C. H. Hanumantha (1975), *Technological Change and the Distribution of Grains in Indian Agriculture*, Macmillan, New Delhi.

4. Hopper, W. D. & Freeman, W. H. (1969), From Unsteady Infancy to Vigorous Adolescence : Rice Development EPW, March.
5. Desai, D. K. (1969) Intensive Agricultural District Programme, Analysis of Results, EPW, June.
6. Sen, S. R. (1967), Growth and Instability in Indian Agriculture, JI SAS, June.
7. Mitra, A (1963), Tax Burden on Indian Agriculture in Administration and Economic Development in India, Duke UP and Gandhi, V. (1966) Tax Burden on Indian Agriculture Harvard Law School.
8. Lipton, M. (1969) The Transfer of Resources from Agriculture to Non-Agricultural Activities : The Case of India, IDS Communication Series, No. 109 and Shetty, S. L. (1971). An Inter-Sectoral Analysis of Taxable Capacity and Tax Burden, IJAE, July-September.
9. Dantwala, M. L. (1967) Incentives and Disincentives in Indian Agriculture, IJAE, April-June and Thamarajakshi, R. (1969, 1972) Inter-sectoral Terms of Trade and Marketed Surplus of Agricultural Produce, 1951-52 to 1965-66, EPW, June.
10. Chaudhury, Primit, 1978. The Indian Economy-Proverty and Development, ViKas.
11. Frankel, F. R. (1971) India's Green Revolution : Economic Gains & Political Costs, California up.
12. Raj, K. N. (1972) Mechanisation of Agriculture in India and Sri Lanka, International Labour Review, July-December.
13. Chaudhury, Primit. Op. cit.
14. Rao, C. H. Op. cit.
15. National Council of Applied Economic Research (1973), Impact of Mechanisation in Agriculture on Employment, New Delhi.
16. Ladejinsky, Wolf (1969). The Green Revolution in Punjab. A Field Trip, EPW, June.
17. Towards Mechanising Indian Agriculture : Role of Agro- Industries Corporation 1969 Farm Journal, September-October.
18. Mandal, G. C. (1972) Observations on Agricultural Technology in a Developing Economy EPW, June.
19. Patnaik, Utsa (1971), Capitalist Development in Agriculture, EPW, September-December.
20. Ladejinsky, W. (1972) Land Ceilings and Land Reform EPW, February.

A CRITICAL ANALYSIS OF INDEBTEDNESS IN RURAL SECTOR OF ORISSA

B. Bhuyan
Mrs. B. Mohanty

INTRODUCTION

The Reserve Bank has published the findings of its recent Rural Debt Survey which indicate that a solution to the problem of indebtedness should be closely associated with the new Economic Programme. The character of rural indebtedness has changed considerably since the thirties. The nature of borrowing has also changed with more loans from institutional agencies, usually for investment in agricultural operations. The investments are both short term and medium term in nature. In Orissa where the debt-asset ratio is the lowest in the country the poor farmers in certain areas of the state look upon the private sources for the investment. Though there is a significant growth of cooperatives the supply of credit from them continues to fall far short of the needs. The present situation is not much better than that revealed by the all India Rural Credit Survey 1954. The hard core of the problem persists. That is to make available for production as well as consumption adequate credit to the rural population through institutional agencies instead of money lenders. Most of the credit given by the money lenders is used for consumption and not production and is available generally to those who offer some security. The money lenders' credit has almost always been ruinous to the borrower. The rural people of the state continue to be in debt. So far no study has been conducted at the state level to find out the extent of indebtedness in the rural sector of the state. A study on the subject is essential to diagonalise the problem and to help the State Government to enact debt legislations from time to time. The recent rise in the price of fertilizer and diesel has serious impact on the indebtedness in the agricultural sector. The study will enable the State Government to decide whether to promulgate imposition of moratorium on recovery of debts from persons owning less land and from land-less labourers. In the absence of precise statistics on rural indebtedness, the State relies on scanty data available from the Reserve Bank studies conducted from time to time. Such studies have shown that credit from institutional sources has increased.

This study has therefore confined itself to the co-operative credit. An attempt has been made to find out the extent of indebtedness in the rural

areas so far as co-operative credit is concerned. The objectives of the study are :

(1) To find out the number of farmers both big and small who remain indebted to the co-operative credit societies for three years i. e, 1977-78 to 1979-80.

(2) To find out the amount of loan remained unpaid in the rural sector from 1976-77 to 1979-80.

(3) To find out the extent of bad debt and over-due in the rural sector from 1965-66 to 1974-75.

To examine if the indebtedness is related to low level of agricultural production.

METHODOLOGY

The study has covered the entire state and necessary data have been collected from publications of Orissa State Co-operative Bank and Agricultural credit section of the Reserve Bank of India. The figures on agricultural production for three years from 1976-77 to 1978-79 have been collected from the Directorate of Agriculture. Data on loan advanced, loan overdue and bad debts have been collected for 10 years from 1965-66 to 1974-75. Data on number of small farmers and large farmers who are defaulters have been collected for three years from 1977-78 to 1979-80.

Statistical analysis has been done to find out the correlation co-efficient between annual agricultural production and loan overdue of the state for three years, i. e 1976-77 to 1978-79. The correlation analysis has been conducted to examine if the payment of debt depends upon the agricultural production in the rural sector.

II

EXTENT OF INDEBTEDNESS

The data have been analysed relating to all the revenue districts to find out the number of farmers both large and small who remain indebted to the co-operative credit societies. The analysis has been presented in the table No. 1 for three years. The percentage of total is given in brackets. The table shows that in 1977-78 in revenue districts of Balasore, Ganjam, Kalahandi, Keonjhar and Sundargarh a greater percentage of farmers belonging to small size farms have remained, indebted to the cooperative credit societies compared to the percentage of farmers belonging to large size farms, where as in Bolangir, Cuttack, Dhenkanal, Koraput, Mayurbhanj,

Phulbani, Puri and Sambalpur comparatively a greater percentage of large farmers are found indebted to the co-operative credit societies. The percentage of each group of farmers varies from year to year. The data of 1979-80 clearly indicate that in 10 out of 13 revenue districts small farmers exceed the large farmers in percentage so far as the extent of indebtedness to co-operative credit societies is concerned. The picture is almost the same during the year of 1978-79. The reason of high indebtedness in small farm group is probably due to low production leading to low repaying capacity and diversification of production credit for consumption and unproductive uses. Uncertain agriculture erodes the repaying capacity of the borrowers who face severe fluctuation in production. The data for three years show that invariably a greater percentage of large farmers belonging to revenue districts of Bolangir, Phulbani, Sambalpur and Sundargarh are found indebted to the co-operative credit societies. Probable reason is that due to low irrigation in Bolangir, Phulbani and Sundargarh production in agriculture sector is not as much satisfactory as is in coastal belt of the state. There might be political reasons behind non-repayment of loan. Besides, low production and drought-prone conditions affect to a greater extent on the repaying capacity of the farmers. It is a fact that co-operative credit mostly flows in large scale to the large farming sector in these districts.

MAGNITUDE OF DEFAULT

Data for the years 1976-77 to 1979-80 have been analysed to find out the amount of loan defaulted in rural areas to the co-operative credit societies. Percentage of amount of loan defaulted to the total loan is shown in table No.2. The table shows that in 1976-77, the percentage of total loan remaining overdue varies from 8.08 in Mayurbhanja district to 80 percent in Bolangir. A loan becomes overdue when not repaid within the time stipulated for repayment. In terms of amount the overdue loan extends from rupees 22 lakhs to rupees 170 lakhs during the relevant period. During the year 1977-78 the percentage of loan overdue varies from 5 percent in Keonjhar revenue district to 59 percent in Bolangir district. During the year 1978-79 the figures varies from 12 percent in Balasore district to 58 percent in Sambalpur district. In 1979-80 the percentage of loan overdue ranges from 4 in Mayurbhanj district to 22 percent in Kalahandi district. The analysis of data for 4 years shows that in districts like Bolangir, Kalahandi and Sambalpur percentage of loan remaining overdue is greater than that of other districts of coastal belt. Not only a greater number of large farmers remain as defaulters but also a greater percentage of loan remained defaulters in the western districts like Sambalpur, Bolangir and Kalahandi.

LOAN OVER-DUE AND BAD DEBTS :

The loans remaining unpaid for longer period becomes a bad debt. Data have been analysed for a period of 10 years, i. e. 1965-66 to 1974-75 to find out the loan advanced, loan overdue and bad debts and loan over due of the total loan are shown in the brackets. The analysis is shown in the table. The table No. 3 shows that percentage of loan remaining over due varies from 46 percent to 160 percent. The over due accumulated from the past have become so much that from 1969-70 to 1974-75 they have even exceeded the amount of loan advanced during the same year. Overdue has become a chronic problem in the cooperative sector. The bad debts in terms of quantum have ranged from rupees 10 lakhs to rupees 47 lakhs, over the period from 1969-70 to 1974-75. In terms of percentage the bad debts ranges from 1 percent in 1965-66 to 3 percent 1970-71. Both these years are bad agricultural years due to drought and flood respectively. As per the reports of Orissa State Co-operative Bank, the above dismal picture is due to 62 percent of failure of crops, 27 percent due to misutilization of loan, 6 percent due to lack of repaying capacity and 5 percent due to willful default. However the table shows that the bad debts constitute a low percentage of the total.

REASONS FOR INDEBTEDNESS :-

Despite the stabilisation arrangement designed to take care of situations arising out of crop failures caused by natural calamities, the extent of indebtedness has assumed such alarming proportions that the co-operative credit institutions have become stagnated so as not to be relied upon to provide any support to rural sector. These developments called for an inquiry into the causes of indebtedness. A variety of factors explain the trend in indebtedness to cooperative credit institutions. The important factors are (i) slow recovery of dues, (ii) crop failure due to natural calamities (iii) inadequate supervision of credit, (iv) unsound lending policies, (v) misutilization of loan (vi) low repayment capacity, (vii) low asset of the farmers. Although a combination of all or most of the factors are responsible it is often contended that factors like crop failures are mainly responsible for poor recoveries. The reasons are generally divided into two categories, viz. external factors and internal factors. The external factors include generally climatic conditions, irrigation facilities, cropping pattern. Admittedly the occurrence of natural calamity and such other unfavourable factors cause more of indebtedness. By the same token one could expect that given favourable climatic and agricultural conditions as evidenced by normal rainfall, assured irrigation etc. the recovery is comparatively easy.

The repaying capacity in the agriculture sector depends to a great extent upon the agriculture production. To find out the relationship between the annual agricultural production and loan everdue correlation analysis has been done taking relevant data of all revenue districts. The analysis of data is presented in the table No 4.

The table above shows the agriculture production and loan over-due from 1976-77 to 1978-79 for each revenue district. The analysis indicates a close relationship between the production and loan everdue. The correlation coefficients are $r=0.54$ and $r=0.62$ in 1976-77 and 1978-79 respectively. These positive correlation co-efficients imply that low production contributes to a greater extent towards non repayment of debts. The other reasons are wilful default and political.

III

Indebtedness in the rural sector has assumed staggering proportions. To reduce the degree of indebtedness the following measures may be undertaken.

(i) As external factor like onset of monsoon remains beyond human control, measures are to be undertaken to increase the area under irrigation to increase productivity.

(ii) The mono-cropping pattern may be changed to increase the agricultural income. Suitable cropping pattern is to be evolved to increase the intensity of cropping and to reduce risk in the agricultural sector.

(iii) Diversification of farming by introducing subsidiary enterprises like poultry, dairy and goattery may be undertaken to ensure a stable income to the farmer and to enhance his repaying capacity.

(iv) Subsidiary occupations like handicrafts and carpentry in rural sector may be encouraged to increase the income of the rural people.

(v) The co-operative credit societies in turn should organise and supervise the utilization of credit with a view to check misutilization of credit. A repayment schedule is to be prescribed to enable the borrower to make payments on instalment basis.

(vi) The credit institutions are to create proper climate to receive prompt payment from the borrowers. The defective lending policies

pursued by the co-operatives, the apathy of the management in taking actions against recalcitrant members are also some other reasons for bad debts. The management of the society should create a sense of responsibility among the cultivators towards making timely payment of loan advanced to them.

(vii) Rural employment schemes for benefit of small and marginal farmers in neglected areas are to be launched. Rural employment programmes, plans for drought-prone areas and steps to promote subsidiary occupations are to be undertaken on a regional basis.

(Tables overleaf)

Table No. 1
Number of Farmers in indebtedness to the Co-operative Societies in Orissa (1977-80)
Percentages are given in brackets.

Sl. No.	Name of the district.	1977-78			1978-79			1979-80		
		No. of small farmers	No. of big farmers	Total	No. of small farmers	No. of big farmers	Total	No. of small farmers	No. of big farmers	Total
1.	Balasore	25352 (71%)	10235 (29%)	35587	19214 (66%)	9955 (34%)	29168	9073 (28%)	23489 (72%)	32562
2.	Bolangir.	29000 (19%)	124000 (81%)	153000	24103 (4%)	25086 (5%)	49194	24317 (49%)	25105 (51%)	49422
3.	Cuttack	38381 (48%)	41297 (52%)	79678	46717 (75%)	15269 (25%)	61986	50455 (71%)	20766 (29%)	71221
4.	Dhenkanal	25878 (45%)	31502 (55%)	57380	33040 (63%)	19090 (37%)	52130	47932 (79%)	12378 (21%)	60310
5.	Ganjam	33095 (73%)	12190 (27%)	45285	42965 (78%)	12240 (22%)	55205	27349 (52%)	25549 (48%)	52898
6.	Kalahandi	24270 (64%)	13757 (36%)	38027	19618 (57%)	11096 (43%)	34714	26898 (55%)	22287 (45%)	49185
7.	Keonjhar	8028 (60%)	5354 (40%)	13382	14372 (83%)	2890 (17%)	17262	21301 (75%)	7207 (25%)	28508
8.	Koraput	15861 (47%)	17935 (53%)	33796	8534 (52%)	7863 (48%)	16397	245 (86%)	285 (17%)	530
9.	Mayurbhanj	11092 (35%)	20502 (65%)	31694	17185 (59%)	11768 (41%)	28953	20529 (64%)	11745 (36%)	32274
10.	Phulbani	6142 (38%)	9862 (62%)	16004	7407 (39%)	11675 (61%)	18082	12451 (46%)	14839 (54%)	27290
11.	Puri	36681 (42%)	50653 (58%)	87334	18714 (46%)	21537 (54%)	40251	30121 (63%)	19660 (37%)	47781
12.	Sambalpur	29891 (42%)	40862 (58%)	70753	32339 (49%)	33167 (51%)	65506	31029 (52%)	28516 (48%)	59545
13.	Sundargarh	7670 (51%)	7505 (49%)	15175	7328 (63%)	4260 (37%)	11588	6291 (47%)	7273 (53%)	13528

Table No. 2

Loan advance by the Co-operative Societies and loan overdue :- percentages are shown in brackets (Rs. in lakhs)

Sl. No.	Name of the district	1976-77		1977-78		1978-79		1979-80	
		Loan advance	Loan over due	Loan advance	Loan over due	Loan advance	Loan over due	Loan advance	Loan over due.
1.	Dhenkanal	314.26	68.58 (21.80%)	250.95	62.76 (25.01%)	336.83	108.58 (32.24%)	793.29	93.30 (11.81%)
2.	Ganjam	785.04	152.07 (19.37%)	797.13	194.77 (24.43%)	887.06	268.22 (30.24%)	1154.54	263.76 (22.84%)
3.	Balasore	281.67	48.21 (17.12%)	518.30	55.12 (10.63%)	718.86	90.69 (12.62%)	1057.08,	75.26 (7.12%)
4.	Cuttack	404.94	108.86 (26.88%)	558.93	147.45 (25.13%)	1238.74	233.03 (18.81)	1038.10	101.67 (9.79%)
5.	Kalahandi	153.76	62.76 (40.82%)	173.67	65.73 (37.85%)	412.36	132.26 (22.07%)	435.66	96.61 (22.18%)
6.	Bolangir	115.81	93.18 (80.46%)	150.39	89.46 (59.49%)	391.22	191.25 (48.63%)	577.18,	84.88 (14.97%)
7.	Phulbani	117.90	23.95 (20.3%)	118.16	23.46 (19.85%)	205.48	57.66 (28.06%)	327.50	31.87 (9.73%)
8.	Keonjhar	276.28	22.33 (8.08%)	422.38	24.98 (5.9%)	204.06	75.62 (37.06%)	344.21,	36.15 (10.5%)
9.	Puri	541.99	19.49 (3.59%)	741.46	153.00 (20.63%)	909.18	260.33 (28.63%)	1383.91	140.04 (10.12%)
10.	Koraput	145.88	44.86 (30.75%)	196.47	43.80 (22.29%)	292.37	70.90 (24.24%)	419.32	37.88 (9.03%)
11.	Mayurbhanj	212.92	15.42 (7.24%)	159.54	21.00 (13.16)	285.09	66.25 (23.24%)	414.51	19.58 (4.72%)
12.	Sambalpur	1013.22	170.85 (16.83%)	1414.03	223.29 (15.79%)	563.11	329.46 (58.51%)	1679.02	300.77 (17.91%)
13.	Sundargarh	86.10	31.45 (36.53%)	61.16	32.24 (52.88%)	116.62	46.59 (39.95%)	167.06	15.69 (9.39%)

Table No. 3

The Amount of Loan given, Loans Overdue and Bad Debts in the Rural Sector(1965-75) of Orissa.

Percentages are shown in Brackets :

Rupees in lakhs :

Year.	Loan advance	Loan overdue	Percentage of over due to total loan.	Bad debts	Percentage of the bad debts to total loan	Remarks
1965-66	987	454	46	10	1	
1966-67	977	701	72	13	2	
1967-68	1170	828	71	13	1	
1968-69	1186	1086	87	22	2	
1969-70	984	1309	133	21	2	
1970-71	899	1442	160	23	3	
1971-72	1254	1513	121	29	2	
1972-73	1561	1913	123	36	2	
1973-74	1345	2144	159	30	2	
1974-75	1933	2045	106	47	2	

Table No. 4
Production and Overdue in Different Revenue District of Orissa

Revenue District.	1976 - 77		1977 - 78		1978 - 79	
	Production of paddy in tons (lakhs)	Over due of loan in Rs. (lakhs)	Production of paddy in tons (lakhs)	Over due of loan in Rs. (lakhs)	Production of paddy in tons (lakhs)	Overdue of loan in Rs. (lakhs)
1. Balasore	2.89	48.21	3.65	56.12	3.65	90.69
2. Bolangir	1.85	93.18	2.50	89.46	2.25	190.25
3. Cuttack	4.68	108.86	6.30	140.45	6.44	233.03
4. Dhenkanal	1.27	68.50	2.54	62.76	2.75	108.59
5. Ganjam	2.63	152.07	2.35	194.77	4.17	268.22
6. Kalahandi.	1.69	62.76	2.27	65.73	2.32	132.26
7. Keonjhar	1.41	22.33	2.03	24.98	2.89	75.62
8. Koraput	3.16	44.83	4.03	43.80	3.85	70.90
9. Mayurbhanj	2.23	15.42	3.64	21.00	3.40	65.25
10. Phulbani	0.57	23.96	0.81	23.46	0.96	57.66
11. Puri	2.63	149.49	3.89	153.00	3.77	260.33
12. Sambalpur	3.38	170.86	4.67	223.29	4.69	329.46
13. Sundergarh	1.18	31.45	1.82	32.24	1.75	46.59
	$r = 0.5407$		$r = 0.2319$		$r = 0.62$	

Annual Agricultural Credit Need of Sambalpur : Estimates and Plan Fulfilment

J. P. Patnaik

Sambalpur, the second largest district of Orissa (17. 520 Sq. Kms.) is the heart land of artistic culture and agrarian awakening. Its tie and dye style of weaving is world famous. This is a household industry having high potential for growth and absorption of bank credit. This paper is, however, addressed to the other significant aspect of the Sambalpur economy, namely, agricultural transformation. It is an attempt to fix targets for the commercial banks and para bank institutions by estimating annual agricultural credit need of the district for the Second Credit Plan and to compare them with the district for the plan estimate and achievement.

METHODOLOGY

In the absence of reliable data on current demand for credit, credit needs are often taken as synonymous with financial needs. Since credit constitutes only a part of the financial requirements, this approach to determination of credit demand and formulation of Credit Plan is not a scientific one. Besides, there is the problem of identifying growth potentials of agriculture and quantifying the future credit needs of the agriculturists. The Baroda Operations Research Group which formulated Credit Plan for the four selected lead districts, viz. Sambalpur, Koraput, Vidisha and Visakhapatnam under the sponsorship of the State Bank of India was aware of these problems. It built up a data base for credit requirements through a sample survey of the district.

Formulation of Credit Plan opens a new horizon in banking policy and is a novel and systematic attempt to bring bank activities into the corpus of the national Plan. The first credit plan (1977-79) is, however, based on faulty estimates. The second Credit Plan (1980-82) which has been prepared under the supervision of the Lead Bank Officer, State Bank of India, Sambalpur and published by its Local Head Office, Bhubaneswar, contains data on the performance of the First Plan. It shows that targets had been set either too low or too high so that they were exceeded or gone under in general.

There can be three procedures for estimating agricultural credit needs of the Sambalpur district. First, we can project credit demand against time. A considerable amount of seasonality is present in case of agricultural loan. But annual data by its very nature eliminate seasonal fluctuations. By fitting a trend line to the data, growth rate of credit can be determined from which the quantum of credit needs can be calculated. Second, a sample survey can be conducted to elicit information from the agricultural households. Average credit requirement, so determined, can be blown up to get a figure at the aggregate level. Third, a determinant analysis can be attempted by linking aggregate credit need with structural indices of the regional economy such as domestic income, gross cropped area or area sown more than once, water and fertiliser intake. The first procedure, a time series technique, expresses time as the only determinant of the credit need; but a determinant analysis incorporates important characteristics of the economy in a multivariate regression model.

Needs are a subjective concept and elude measurement short of complete enumeration. Needs are also a dynamic concept which vary with the developmental effort of the public authorities and private entrepreneurship. Adoption of Sample Survey technique is, therefore, the second best alternative for a researcher trying to determine agricultural credit needs of a region. The problem of underestimation can largely be solved by taking an average (rather than simple average) of the credit requirement of a hectare under farmers belonging to different income groups. The weights must correspond to the pattern of land distribution among different classes of peasant proprietors. A variant of this method is to express credit demand, e. g. to meet cost of cultivation (crop loan) as a dependant variable of household characteristic, such as, income. From the observed data obtained in the survey, the equation can be estimated to determine unknown parameter. The projected income is then incorporated in the equation to determine credit need. This procedure was used by the first Credit Plan¹.

The second Credit Plan calculated the crop loan target by following the two methods suggested in the Reserve Bank of India guidelines. For estimating credit requirements in respect of other schemes, it collected information about number of borrowers and quantum of credit need through block level surveys and by consulting bank and Government Officials in charge of implementation of development schemes².

Due to lack of information about the relation of credit to income at the micro household level and on account of non-availability of time series data on structural indices of the economy, crop loan is estimated in this paper by fitting a trend line to the observed data. The observed values are actually derived from the data available with Deputy Registrar Co-operative Societies under the legitimate assumption that Co-operative Societies disburse 75 per cent of the aggregate Crop Loan in Sambalpur.

AGRICULTURAL FINANCING

The necessity for credit in agriculture sector arises mainly to meet the cost of the following items : (1) Cultivation, (2) working animals, (3) tractor/power tiller, (4) dug well, (5) pump set, (6) other agricultural machinery/equipments, (7) land development and (8) agro-service centre. Households also need funds to buy agricultural land, but since the financial institutions at present do not accommodate loan demand on this account, it is not included in the Credit Plan.

CROP LOAN

Agricultural loan is of two types (1) Crop loan and (2) Term loan.

The term 'crop loan' refers to short-term credit needed for meeting the cost of cultivation. According to the Survey made by the Baroda Group, Crop loan in Sambalpur constitutes only 22.6 of the total cash expenditure on cultivation ; the average credit requirements work out to Rs. 68 per holding. Less than 9 per cent of the cultivator households are loan seekers^a.

Sambalpur can be divided into two homogenous regions based on certain socio-economic characteristics such as cropping pattern, crop intensity, irrigation intensity, occupational pattern, density of population, urbanisation, percentage of backward population etc. Of the seven taluks, while Sambalpur, Bargarh and Jharsuguda belong to region I, the taluks of Padampur, Kuchinda, Deogarh and Rairakhol constitute region II^a.

While average loan requirement in region I is Rs. 107, it is as low as Rs. 28 in region II. That is because most of the Hirakud Command Area belongs to region I. Availability of water and relatively more emphasis on crops which need cash payment to meet cost of seeds, labour, fertiliser, irrigation pesticides and transport for carrying inputs, have led to higher credit demand. In other words, agriculture is to a significant extent governed by cost-profit calculus in the irrigated areas of region I, whereas it is only a family occupation of the agricultural households in region II.

The first Credit Plan established the degree of dependence of credit on income through a regression model and the projected income was, then, incorporated in the equation to determine future credit need of the district. On this basis, crop loan requirements of households for 1978-79 were estimated to be Rs. 351.9 lakh. The Planners themselves felt that 'estimation of crop loan on such method overestimates the credit needs'. In reviewing the implementation of first Credit Plan, the second Credit Plan observed that achievement of the first Plan was 291% in crop loan. This shows that credit needs were grossly underestimated.

The second Credit Plan (1980-82) envisages crop loan amounting to Rs. 1186.47 lakh. This loan will be primarily given to marginal and small farmers.

By fitting trend line to the observed values of annual crop loan, we get the equation of the following form :

$$CL = 269.32 + 82.77 T$$

Where CL stands for crop loan and T for time. For 1980-81, the estimated crop loan is Rs 755.95 lakhs and for 1981-82, it is Rs. 848.74 lakhs.

Year	Crop loan given by Co-op, Society	Aggregate Crop loan.
	(75% of the aggregate loan)	
1975-76	293.20	390.90
1976-77	301.43	401.91
1977-78	347.50	463.30
1978-79	401.61	535.48
1979-80	399.83	533.17
1980-81	710.03	946.71

TERM LOAN

Term loan includes loan to (a) finance purchase of working animals, bullock cart, tractors, power tillers, oil engine/pump set, other agricultural machinery or equipment; (b) construct dug well, (c) undertake land development and (d) start agro-service centre.

WORKING ANIMAL

Firm mechanisation in Sambalpur has not reduced the importance of working animals because its progress is slow and secondly the animals play an important role in the rural transport system.

The second Credit Plan envisages purchase of 7,560 pairs of working animals (6 220 pairs of bullocks + 1340 pairs of bullocks with carts) over three years. In other words, every year about 5040 bullocks have to be financed by credit institutions. This is in sharp contrast to the estimate made by the first Credit Plan. The Plan expected to finance annually 8400 animals. It calculated the credit requirement by taking average bullock price as Rs. 800. The second Credit Plan puts it at Rs. 2,000 per pair, i.e. Rs. 1000 per each bullock implying 25% rise in the price of the animal. The annual credit need with respect to purchase of working animals works out to Rs. 50.4 lakh.

BULLOCK CART

The second Credit Plan estimates that 1340 bullock carts have to be financed over 3 years. It takes average price of cart as Rs. 500. So annual credit need of prospective cart owners is Rs. 2.23 lakh.

TRACTOR

Although tractorisation does not seem to increase net returns of a farm and there are heavy operational and maintenance costs, wealthy peasants, particularly farmers in the Command Area possessing more than 10 acres of land, prefer tractors because it renders inter cultural operations easy and ensures timely sowing. Besides, it can also be hired out.

According to the Agriculture Department, Government of Orissa, stipulation the annual supply of tractors for the district is 50. The average price of a tractor including the cost of plough, cultivator and seed attachment and excluding trolley is Rs. 75,000. The total financial requirement as well as credit need is Rs. 37.5 lakh. Since under present land ceiling rules of the State, it may be difficult to get many holdings of minimum size (10 acres) to finance tractor, the first credit Plan suggested that joint borrowers may be financed.

POWER TILLER

Power Tillers could aid farm mechanisation, but it is not popular among farmers due to non-availability of Kubota power tiller, shortage of spare parts and lack of servicing and repairing facilities. Therefore the second credit Plan does not separately estimate credit need under this

scheme as the first Plan did. The Lead Bank Officer, Sambalpur informs that there is provision for only one power tiller and it has been lumped with Farm Equipments. Consequently, it does not figure in the annual estimates.

DUG WELL AND PUMPSET

The estimates of dug wells and oil engines/pump sets to be financed depend upon the operational efficiency of the Small Farmers Development Agency. The Lift Irrigation Corporation of India installs its own pump sets for direct lift irrigation from rivers. The S. F. D. A. envisaged annual construction of 1000 dug wells out of which 200 wells were to be energised in the fifth Five Year Plan.

The second Credit Plan postulates financing of 10,000 dug wells^o and 1500 pump sets in the year 1980. Financial requirement and credit need for construction of wells (Rs. 5000 for a well) and instalment of pump sets (Rs. 7000 per set + Rs. 1000 instalment expenses) would be Rs. 620 lakh.

OTHER AGRICULTURAL MACHINERY/EQUIPMENTS

The first Credit Plan based its estimate on a study made by the Small Industries Service Institute, Cuttack in 1968. According to SISI, the demand for agricultural implements mostly small implements which are replaced each year is Rs. 12 lakh. With this norm, if we take into account the gross cropped area and the price hike, it works out to an enormous magnitude for the second plan. It is much exaggerated figure considering the loan given during the first Plan. The second Plan has, therefore, realistically estimated the loan at Rs 2.17 lakh. The annual credit need is Rs. 0.79 lakh.

LAND DEVELOPMENT

Land development refers to levelling and consolidation of land, fencing it and constructing water channels. Due to undulating topography in the Hirakud Ayacut Area, there occur problems in proper utilisation of water. The Agriculture Department has estimated that about 11,000 hectares of land in Sambalpur need reshaping. The second Credit Plan expects to finance 610 hectares in the Command Area and 100 hectares elsewhere amounting to investment of Rs. 18.20 lakh. Thus the annual credit need is Rs 6.06 lakh.

HORTICULTURE

The first Credit Plan considered only two crops, mango and citrus. This is so because IADP authorities had prepared detailed plans for their execution. Sambalpur and Rairakhol subdivisions were considered fit to grow citrus on a larger scale. The target was to cover 400 hectares under mango plantation and 243 hectares under citrus. The second Plan aims to achieve a more modest and realistic target, 100 hectares under mango and citrus amounting to Rs. 4 lakh. In other words, annual credit need for horticulture is around Rs. 1.33 lakh in the district.

OTHER LOANS

The second Credit Plan envisages average annual loan advances of Rs. 1.00 lakh for construction of agro-service centre, Rs. 0.91 lakh for godown/storage and Rs. 0.43 lakh for gobar gas.

AGGREGATE CREDIT NEED

The aggregate annual, agricultural credit need of Sambalpur during 1981, the second year of the second Credit Plan is estimated to be Rs. 1569.32 lakh. By deducting Rs. 1.00 lakh intended for agro-service centre credit need of the agricultural households is estimated as Rs. 1568.32 lakh.

LOAN SCHEME		AMOUNT
1.	Crop Loans	848.74
2.	Land Shaping and Land Development	6.06
3.	Dug wells	500.00
4.	Pump sets	120.00
5.	Tractors	37.50
6.	Power Tillers	—
7.	Working Animals	50.40
		52.63
8.	Bullock Cart	2.23
9.	Farm Equipments	0.72
10.	Storage and Godown	0.91
11.	Gobar Gas Plants	0.43
12.	Horticulture	1.33
13.	Agro-Service Centre	1.00
Total		1569.32

ACHIEVEMENT

A recent paper presented by the Lead Bank Office, Sambalpur in a workshop held at Bargarh reveals the schemewise and bank-wise performance of the Second Credit Plan in 1980. The figures are presented in the Annexure with our estimates for purposes of comparison and to determine the levels of Plan fulfilment.

Performance in Crop Loans (104%), Land Shaping and Development (201%), Tractors (183%), Farm Equipments (200%) is noteworthy. Dug well (31%) and Pump set (33%) schemes have not been successfully implemented. Similarly the achievement under Gobargas Plants is not encouraging. The schemes like Bullock Carts, Storage/Godowns and Horticulture appear to be not at all popular in the district. The overall performance of State Bank of India (115%), Andhra Bank (189%), Canara Bank (165%), Orissa State Financial Corporation (107%), United Commercial Bank (84%), Punjab National Bank (93%), Bolangir Anchalik Gramya Bank (73%) and Union Bank of India is satisfactory.

CONCLUSION :

A comparison of our estimates with Credit Plan estimates and a study of the degree of Plan achievement reveal the necessity to refix targets for crop loan requirement and credit needs in respect of Land Shaping and Land Development, Tractors and Farm Equipments at higher levels by adopting more reliable methods of computation. Since cultivators mostly take crop loan from the co-operatives, these organisations should promptly furnish no due certificates in the event of retirement of the loan so that the loanee can get a fresh loan from the banks.

Flow of more credit to buyers of tractors would depend upon availability of the vehicles. Dug well and pump set schemes can be more effectively implemented if village ground water survey report is available and the borrowers can be provided with cement in time. Use of biogas as an alternative source of energy needs more publicity. Since purchase of bullock & bullock carts are mainly for replacement purposes, future expansion of credit depends upon availability of land and irrigation facilities to the poor section of the rural community. Thus effective implementation of Credit Plan is closely linked with land redistribution measure and development effort of the State and Central Government. Since Food Corporation of India has a large plan for

building up storage capacity and there are frequent power cuts, it is a difficult task to augment credit under this scheme. Efforts must be made to attract villagers to the Horticulture Scheme.

It is one thing to try to satisfy the existing credit needs and it is quite another matter and a more important task to create credit needs and meet them. Enthusiastic participation of bank staff and government agencies in economic development, honesty and efficiency of the borrowers are major factors which can really contribute towards Credit Plan fulfilment.

ANNEXTURE

Loan Scheme	Our Estimate	Credit Plan Estimate	Achievement	Levels of Plan fulfilment
1. Crop loan	765-96	945-39	984-68	104%
2. Land shaping and land development	6-05	6-20	12-47	201%
3. Dug wells	500-00	500-00	158-57	31%
4. Pumpsets	120-00	105-00	35-40	33%
5. Tractors	37-50	29-12	53-37	183%
6. Power Tillers				
7. Working Animals	50-40	41-08	20-78	5%
8. Bullock Cart	2-22	11-13	1-09	10%
9. Farm Equipments	0-72	0-72	1-44	200%
10. Storage and Godown	0-91	0-95	—	—
11. Gobar Gas Plants	0-43	0-50	0-14	28%
12. Horticulture	1-33	1-28	—	—
13. Agro-Service Centre : T/LW/C	1-00	—	2-86	—
Total	1486-54	1641-37	1270-80	

REFERENCES :

1. Credit Plan, Sambalpur, Vol II, p. 30 S. B. I. 1976.
2. Credit Plan, Sambalpur, p. 214, S. B. I. 1980.
3. Credit Plan Vol. II, Sambalpur S. B. I. p. 29 1975
4. Credit Plan Vol. II, p. 1. 1976.
5. Credit Plan Vol. II, p. 31. 1976
6. Lead Bank Scheme, S. B. I. A Review of Implementation of District Credit Plan in Sambalpur District'. Paper presented by the Lead Bank Office in Bargarh Workshop. 1981 See the Annexure.

Repayment Problems of Small and Marginal Farmers

FINANCED BY THE PUNJAB NATIONAL BANK BRANCH CUTTACK

A Case Study (with Special Reference to Madhyakocha panchayat of Block Salipur : District-Cuttack)

B. C. Parida

INTRODUCTION:

Profitability of commercial banks in India has gone down to the extent of 1.28 percent and of the public sector banks is less than one percent. It has been observed that the 'Financing of the identified priority sector has led to the present position of declining profitability. Inadequate supervision has led to drastic reduction in recycling of funds and mounting overdues'.

The increasing overdues of the credit institutions restrict the smooth flow of credit and consequently affect the investment capital in agriculture and its modernisation in a large scale. Overdues at the level of these credit institutions restrict their borrowing capacity from the higher financing agencies and impairs the efficiency of these institutions to make fresh advances.¹

This naturally calls for knowing the causes of overdues and defaults in the priority sector and suggesting some remedial measures to improve the position of repayment and overdues. With this objective in view a study was conducted on "Financing of Small and Marginal Farmers in Madhyakocha Panchayat of Salipur Block in the district of Cuttack, Orissa" by the Punjab National Bank, Cuttack Branch.

BACKGROUND OF THE PANCHAYAT AND THE LOANEES STUDIED

The study was undertaken in the Madhyakocha Panchayat of Salipur Block in the Cuttack District. The Panchayat comes under the operational jurisdiction of Punjab National Bank, Cuttack Branch. The Panchayat consists of five villages where the bank has financed Small and Marginal farmers. The panchayat is situated by the side of Cuttack-Kendra-

para Road and National Highway No. 5 at a distance of 15 Km. from the metropolitan city of Cuttack. The Panchayat is situated in Block Salipur having a prosperous economy in the State. Most of the lands are irrigated by Kendrapara and Pattamundei Canal. The total population of the panchayat is 8000 and the total families are more than 800. The bank has financed 31 Small and Marginal farmers in the panchayat. The principal crop of the panchayat is paddy. Besides paddy villagers also grow potato, summer vegetables, jute and summer paddy of high yielding variety,

METHODOLOGY

Census method was adopted to interview the borrowers of the panchayat. The impact of the bank credit was assessed through before and after method to compare the change in the cropping pattern, cost of output and income from the same land holdings of the respective beneficiaries. Only direct cost and direct benefits have been taken into consideration to simplify our analysis.

The interest rate charged by the Bank is as follows:

- (a) For S. C. & S. T. —4% rate of interest.
- (b) upto 2.5 acres — 10% rate of interest
- (c) upto 7.5 acres — 11% rate of interest.
- (d) above 12 acres — 12% rate of interest.

The penal rate of interest is 3%

SELECTION OF THE FARMERS

The borrowers have been classified on the basis of the loan they have taken and on the basis of the land they possess. The first category constitutes the loan upto Rs 1250/-. The second category constitutes the loan amounting Rs. 2500/- and the third category constitutes the loan above Rs. 2500/-. While selecting the farmers the bank has accepted the traditional classification that a small farmer is one who has 2.5 acres of irrigated land at the maximum and marginal farmer is having one acre of irrigated land at the maximum. They themselves are cultivators and do not have off-farm income more than Rs. 200/- per month. The table below shows the classification of the borrowers.

CLASSIFICATION OF THE FARMERS ON THE BASIS OF THEIR SIZE OF HOLDINGS AND SIZE OF LOAN

Sl. No.	Size of Holding.	No. of farmers.	Size of loan	No. of farmers.
1.	up to 1 acre.	5	up to Rs. 1250/—	12
2.	up to 2.5. "	18	up to Rs. 2500/—	12
3.	above 2.5 "	8	above Rs. 2500/—	7
Total:		31		31

THE OBJECTIVES OF THE STUDY

(a) To measure the credit gap that is the credit demanded by the borrowers supplied by the banks.

(b) To assess the economic benefit of the credit by comparing costs and returns from the utilisation of credit.

(c) To know the effect of credit on technological diffusion in agriculture with special reference to change in the cropping pattern.

(d) Whether repayment is regular or there is substantial overdues of repayment.

In this paper an attempt has been made to consider the findings of the repayment problems in detail. The problems of repayment cannot be considered without reference to the cost and benefits of the bank credit to the sample farmers.

From the analysis of costs and returns for three years it has been estimated (with 1977-78 as the base year) that the per acre net income of paddy was Rs. 525/- before credit was applied. After the credit had been applied it is estimated at Rs. 675/- and Rs. 914/- respectively for subsequent two years. Thus the increase in the net income per acre for paddy had been Rs. 150/- and Rs. 389/- respectively. In case of another staple crop potato the per acre net income had increased from Rs. 550/- in 1978 to Rs. 900/- and Rs. 981/- respectively in subsequent two years. In case of potato therefore, the net increase per acre had been Rs. 350/- and 431/- for the subsequent two years.

ASSUMPTIONS ON REPAYMENT

The following assumptions have been made while studying the repayment problems.

(a) Credit provided by the Punjab National Bank are short term agricultural credit provided for seasonal agricultural harvesting of crop and marketing of the produce.

(b) The loan is to be repaid in instalments, fixed by the bank on the basis of the anticipated surplus.

(c) The loan is to be repaid on certain due dates. If not, it should be regarded as over due.

(d) If the loan is not repaid within the stipulated period, a penal rate of interest @ 3% is charged.

(e) In order to reduce the liability of farmers, some subsidy is granted to them. This subsidy helps the farmers at the time of repayment of loan.

RECOVERY POSITON

The Table No. 2 indicates the recovery position of our sample farmers.

TABLE—2

Category of farmers	Size of loan. Rs.	Amount repaid. Rs.	Amount of subsidy Rs.	Amount of Default. Rs.
SMALL	39,425 (100)	2,681.51 (6.8%)	9,539.75 (24.2%)	33,420.29 (84.8%)
MARGINAL	19,510 (100)	658.00 (5.7%)	5,692.66 (25.8%)	16,361.89 (84.5%)
TOTAL	58,933 (100)	3,339.51 (5.7%)	15,232.41 (25.8%)	49,812.18 (84.5%)

(Figures in parentheses indicate percentage to total finance)

Out of the total finance Rs. 58930/— only Rs. 3339 51 5.7% had been repaid. Rs 2681. 51 (6.8%) had been repaid by the small farmers while the marginal farmers had repaid Rs. 658.00 (3.4%). Hence, there had been default to the extent of Rs. 55590.49 which amounted to overdues to the extent of about 94.3%. This Rs. 55590.49 was the loan without subsidy. If subsidy were taken into consideration, then they would be exempted to the extent of Rs 15232.41 but since the sample farmers had not repaid in due dates, they had to pay Rs. 49812.15. Out of the total default amount 84.8%, i.e. Rs 33420.29 was the default with the small farmers and 84%, i. e. Rs 16391.89 was the default with the marginal farmers.

It is interesting to note that those people who had repaid the loan to the extent of Rs. 3339.51 came from loan group, up to Rs. 2500. None of the farmers from the above Rs 2500/ loan group had repaid even a single rupee. Out of the total loan repaid (Rs. 3339.51) Rs. 1908 had been repaid by the lowest loan group up to Rs. 1250/- and Rs. 1431.51 had been repaid by the loan group up to Rs. 2500/-. It seems that the loan group up to Rs 2500/- had greater responsibility and willingness to pay the loan than the other loanees. This is clear from table³.

TABLE-3

Sl. No	Size of loan (Rs)	Amount repaid (Rs)
1.	Up to Rs. 1250/-	Rs. 1908.00
2.	Up to Rs. 2500/-	Rs. 1431.51
3.	Above Rs. 2500/-	—
Total		3339.51

FACTORS RESPONSIBLE FOR OVERDUES

As many as five important reasons for default have been found out by the study.

Wilful default :—In many cases the defaults have been wilful. As many as 8 borrowers were found to be wilful defaulters. It is infact a very difficult task for the banker to deal with such defaulters and to effect from them early recovery of dues. These defaulters had the capacity and ability to repay the loan but they did not repay deliberately.

They have a feeling that bank loans are like subsidies granted by the Govt. which need not be repaid.

(ii) *Domestic expenditure* :—The second reason is the increase in the domestic expenditure. The sample farmers consumed more than 50% of their production loan because they were not provided with consumption loan.

(iii) *Low Yield* :—Some farmers complained low yield due to sub-standard fertilizers and seeds.

(iv) *Crop Failure* :—Damage of crop due to attack of insects had compelled some farmers to be defaulters. Also natural calamities such as drought, disease-epidemics and family catastrophes beyond the control of borrowers resulted in total/partial crop failure and huge financial losses.

(v) Ineffective supervision about the use of money had been also a factor for overdues.

SUGGESTION TO REDUCE OVERDUE :

1. **Wilful Defaulters:**—The wilful defaulters have earned appreciable additional income from the Bank Credit. These category of borrowers should be dealt with promptly and seriously, even by enacting suitable legislation. In the first place active support of the state and central Govt. is absolutely necessary in the recovery of overdues. When the Government has been directing/pressing very hard the public sector banks to simplify the lending procedure, do away with mortgages of land and property, to disburse the loans just to achieve the targets and mobilising the resources of credit institutions for the development of agriculture, it should also be the responsibility of the Government to protect the credit institutions/depositors and tax-payers by taking the wilful defaulters in a simplified legal procedure.

(i) It has been suggested that special officers may be appointed by State Govt. to help commercial banks in the recovery of overdues.

(ii) Commercial Banks should be allowed to dispose of securities without intervention of the Civil courts.

(iii) Government should be willing to purchase lands given as securities by agricultural borrowers who are wilful defaulters if no purchasers come forward from the local areas to purchase it.

(iv) State Government should not pass orders indiscriminately granting moratorium, remissions of loans and land revenue.

(v) In order to effect recovery of the accumulated overdues it is necessary to devise ways and means which may include : (a) educating borrowers, (b) re-arranging campaign/recovery drive, (c) introducing some incentive schemes, (d) re-scheduling or extending the period of repayment and in the last resort to write-off some amount which is considered absolutely necessary.

2. CONSUMPTION LOAN

The bank should have to provide consumption loan to the borrowers because there is a time lag between the investment and return. The gestation period of crops vary from month to month. The traditional source of getting credit from the money lenders has almost dried up because of governmental regulation.

3. LOW YIELD

The yield can be increased by supplying standard fertiliser and seeds. District planning officers may be appointed who could plan the crops for each season according to changes in the seasonal and other factors like price, yields etc.

4. CROP FAILURE

For defaults arising due to forces beyond the control of individual borrowers institutional arrangements in the form of insurance and credit guarantee for the benefit of both borrowers and lenders should be worked out and made available for all categories of borrowers⁴. Crop insurance should be instituted as soon as possible. When a crop fails neither the production loan nor the instalments towards investment loan are repaid. Besides interest also runs into arrears. Therefore, crop insurance is a logical necessity for the non-wilful defaulter.

It has, however, been observed that the Government does not issue certificate/declare failure of crops even in genuine cases which creates problems for rescheduling the repayment period. This should be promptly attended to by the project authorities/panchayat / district administrations. As the repayment of investment credit, and also production credit depends on the successful cultivation of crops, the crop-insurance scheme should be implemented throughout the country as suggested by the Dandekar Committee.

5. APPRAISAL, SUPERVISION AND FOLLOWUP

The very fact that there are mounting over-dues stand testimony to the fact that the banking procedures are not fool-proof. The bankers intentionally or ignorantly, have resorted to inadequate financing. As a rule, rather than exceptions, the banks have the tendency to believe that the estimate given by the borrower is an over-estimation and thus sanction less amount which finally results in half finishing of venture or total misutilisation of loan. The bank should then follow the price index of various inputs as there is subsequent rise in their price and grant the required credit to the farmers. The loans to be extended to the borrowers should be well within his repaying capacity which should be worked out scientifically. Endeavours have to be made by the credit institutions to work out a realistic scale of finance for all the activities in close cooperation with the agricultural universities, regional research centres: district agricultural/

animal husbandry offices, ARDC etc. In fact, case-studies of the schemes already in progress should be utilised for this purpose.

So far as supervision of credit is concerned Gunavanta Desai Committee appointed by the R. B. I. has recommended that there should be adequate provision for field staff, effective training programme for them and regular interaction between branch staff and relevant official of development administration. "The purpose of this interaction is to seek solutions to the problems because of which loans are not making impact on the economics of borrowers as contemplated in agricultural credit scheme."

ONE CUSTOMER AND ONE BANK

Introduction of farm pass book with legal backing to eliminate the possibility of an agriculturist taking loan from more than one source should be introduced. It is, therefore, essential that in principle a system of one borrower, one financing institution should be accepted and implemented.

MONITORING

What is needed is that the banker should undertake regular studies of this chronic problem of mounting overdues. A recovery cell should be setup for collection of data periodically and analyse them to estimate the degree of influence of various factors like season, location, calamities or deliberate action etc. on the extent of recovery.

REFERENCES :

1. R. Raghupati : "Profit Planning in Commercial Banks". Prajnan October, December, 1979.
2. U. K. Pandey & M. A. Muralidharam : "Overdues and size of holding of defaulters" Financing Agriculture Vol: XI No. III p. 48
3. A. R. Patel : "Recovery of Farm Loans, Some basic issues" Eastern Economist, January, 16, 1981.
4. S. B. Gupta : "Credit Planning in India" Indian Economic Journal—Dec, 1980.
5. S. S. M. Desai : "Rural Banking in India"—p. 223

Irrigation and Agricultural Indebtedness : a case study in Salandi Command Area.

S. Mohanty

The largest use of water in the world is for irrigating land. According to K. L. Rao water, is an important agricultural input to stabilise agriculture and augment production for all areas where the rainfall is less than 1000 to 1150 mm¹. On the basis of Settlement Reports findings of Irrigation Commission of 1884 and crop cutting surveys, S. Misra, in his "Economic survey of Orissa", came to the conclusion that provision of perennial irrigation would increase the yield of paddy by about 35 per cent, besides providing insurance against the prospects of crop failure which occurred on the average twice in every five years on account of flood or drought². Out of the cultivated area of 6.8 million hectares in the State only about 16 percent is irrigated in khariff and less than 6 percent in rabi³. The policy of the government should naturally be to achieve optimum utilisation of the irrigation potential. With that end in view Command Area Development Programmes have been taken up since 1976 in the areas covering Hirakud canals, Mahanadi delta and the Salandi canals.

Command area authorities are responsible for devising ways of maintaining the efficiency of canal system, looking to the problems of drainage, propagating the pattern of multicropping etc other related matters. These objectives can be effectively fulfilled only if there is consolidation of holdings. I D.A. assisted irrigation projects include programmes of consolidation of holdings in the three major commands mentioned above. Consolidation of holdings has been taken up in the Salandi command area as a part of the scheme. The objective of this study is to find out the impact of the programme of command area development on the utilisation of credit and the extent of rural indebtedness.

SELECTION OF VILLAGE

Tulipada is one of the few villages in the Salandi command area where both irrigation and consolidation works have been completed. The village may be considered as ideal from the point of infrastructural development for agricultural break-through. The village has easy access to credit agencies, market and the services of agricultural exports. With this back

ground the village was selected for a case study to ascertain the extent to which the agriculturists of the village have taken advantage of the available facilities for improving the yield and income from land and the impact of these on their capacity to repay loans⁴.

PROFILE OF THE VILLAGE

- Tulipada is a small remote village in Bant P. S. of Balasore district.
- Now the left main canal of the Salandi project passes through the village. Canal embankment serves as a all-weather road for villagers to reach the nearby growth centre at Agarpura, a distance of about 3 Kms. and the subdivisional H. Q. of Bhadrak, a distance of about 16 Kms. The village has 35 house-holds, of whom 30 possess land and the rest 5 are landless. After consolidation there are 99 holdings in the village with 89 single "chakas" and 10 double "chakas". Altogether 77.27 acres of land of the village have been consolidated. There is complete water management with field channels lined with cement tiles and field drains. Field roads have been provided in between the consolidated plots. Facilities for transporting agricultural inputs and outputs to and from the village may be considered as ideal. There is an Additional D. A. O. posted at Agarapara with his specialist staff. There are two institutional agencies at Agarapara to meet credit needs—a branch of the Allahabad Bank and the Purusandh Service Co-operative Society Ltd.

METHODOLOGY

Census method was followed to conduct the survey. As the objective was to ascertain the extent of agricultural indebtedness, the five landless families were kept outside the scope of the survey. Data was collected by personal interview in February 1981 on the basis of questionnaire. The same pertained to the year 1979-80, including one Rabi and another Khariff crop. Only short term crop loans were considered. Farmers were classified according to the size of holdings, e.g., marginal farmers with 0 to 1.25 acres, small farmers with 1.25 to 2.5 acres and big farmers with holdings above 2.5 acres.

ANALYSIS OF RESULT

(a). *Farm size and indebtedness :*

Table I gives the position of indebtedness by farm sizes. Volume of loan per household was maximum for large farmers and minimum for marginal farmers, whereas the position was just the reverse in case borrow-

ing per acre of holding. Average borrowing per acre of holding was maximum in case of marginal farmers and minimum for large farmers. This shows that the marginal farmers had incurred greater loan compared to the amount of land held by them.

TABLE—1

Borrowing by size of farm
(including outstanding old crop loans)

Size group of farmer.	Amount of loan incurred in Rs.		
	Total	Per Farm house hold	Per Acre
Marginal Farmer	1750	194	350
Small Farmer.	4855	405	228
Big Farmer.	5732	637	117
Total	1,337.	411	164

Table 2 gives the position of over due loans by farm sizes. Though the average borrowing per acre of holding was the lowest among the large farmers (Table—1), the percentage of over-due loans was the highest for them. They were defaulters to the extent of 79 percent of the volume of loan incurred. Percentage of over-dues was the lowest (59 percent) in case of the small farmers. Percentage of over dues for the village as a whole was 69 percent.

TABLE—2

Over due loans by Farm sizes

Size group of farmer.	Amount of loan. (Rs)	Over dues.		Percentage of over dues to total loans incurred.
		Total.Rs.	Per acre	
1. Marginal farmers.	1750	1350	270	77%
2. Small Farmers.	4855	2671	126	55%
3. Large Farmers.	5732	4542	93	79%
Total	12337.	953		69%

(b) *Reasons for over-dues :*

The respondents were asked to state the reasons for default of the crop loans, which are supposed to be repaid just after the harvest. Out of

the various plausible reasons, the survey revealed that only three reasons were responsible for default of loan. As the Table 3 shows among the 13 defaulters, 15 percent defaulted due to natural calamity, e.g. hailstorm, 31 per cent due to poverty and household consumption and 54 per cent due to failure of crop by insects.

TABLE-3

Reasons for over dues

Major Reasons	Size group I	Size group II	Size group III	Total No.	Percentage
1. Natural calamity (hail storm)	1	1	—	2	15
2. Destruction of crop by insects.	1	2	4	7	54
3. Low price of paddy at the time of harvest.	—	—	—	—	—
4. Poverty and household consumption.	1	1	2	4	31
5. Family mishap or ceremony	—	—	—	—	—
Total	3	4	6	13	100

(c) *Attitudes of Farmers to credit and credit agencies :*

Table-4 discloses the preference of farmers for different credit agencies. While 50 per cent of the respondents did not prefer to borrow at all, 40 per cent preferred bank loans and only 3.33 per cent preferred loans from co-operative agency. Thus co-operative agency was least preferred.

TABLE-4

Preference of Farmers to credit agencies

Preference.	Size Group-1	Size Group-II	Size Group-III	Total	Percentag
Bank loan	4	5	3	12	40%
Co-operative	—	—	1	1	3.33%
Private agency	—	1	—	1	3.33%
Any agency preferred	—	—	1	1	3.33%
No loan preferred	5	6	4	15	50%
Total	9	12	9	30	100%

The respondents were asked to express their views regarding different aspects of institutional loans. Table—5 gives the result 40 per cent of farmers reported that co-operative loans involved trouble and harassment, whereas nobody reported any such harassment in case of bank loans 20 percent of farmers did not want the system of retaining documents (Patta) by bank. They felt that the documents could be returned after verification as in case of co operative loans. 10 percent of the farmers wanted the crop loan to be converted into M. T loan and another 10 percent wanted the interest rate to be reduced. While 16.6 percent of farmers did not prefer input loans, 13.3 percent of them wanted the loan amount per acre to be increased.

TABLE—5

Opinion/suggestion of farmer regarding institutional credit :

Opinion/suggestion.	Size group I	Size group II	Size group III	Total	Percentage
1. Co- op loan involved trouble and harassment.	3	7	2	12	40%
2. Bank loan involved trouble and harassment	—	—	—	—	—
3. Loans be given with out retaining "Patta"	—	4	2	6	20%
4. Crop loan be converted into medium term loan	1	1	1	3	10%
5. Interest rate be reduced.	1	2	—	3	10%
6. Cash loan preferred to input loans.	1	2	2	5	16.5%
7. Amount of loan per acre be increased	—	2	2	4	13.3%

SUMMARY & CONCLUSION

(1) The major reason for default of loan was the incidence of insects. Farmers reported that there was failure of crop for the last 3 years due to insects. They have been so much scared that nobody in the village has done Rabi rice this year (1980-81). The dosage of insecticides might have been insufficient or the insects might have developed resistance to the same. This is a case for investigation by farm scientists.

(2) Quite a large percentage of farmers were in overdues due to poverty and household consumption. 50 per cent of the farmers did not prefer to borrow at all apparently because they had not succeeded in making profitable use of the credit and had faced hardship in repaying loans. This proves that the farmers have not been able to utilise the infrastructural facilities provided by government to the optimum extent. The remedy probably lies in intensifying agricultural extension work. Agricultural operations should be diversified. Cultivators should be induced to practise proper rotation of crops in stead of depending on one or two paddy crops only.

(3) It is high time that a scheme of crop insurance is introduced in irrigated areas to insure against natural calamities and the incidence of pest and insects, at least to the extent of institutional loans incurred by farmers.

(4) The survey revealed that there were irritants in the system of loans advanced by the co-operative agency. Further study is necessary to ascertain if the irritants were peculiar to the local society or common to all the co-operative agencies.

References:

1. India's water wealth p. 109, Orient Longmans Ltd. 1975.
2. Finance Department Government of Orissa PP. 194-95. (1960).
3. Sixth Plan of Orissa 1980-85, Government of Orissa, 1910 P-128.
4. The village was selected for the study after a preliminary discussion with the Deputy Director, Consolidation, Bhadrak, Manager, Allahabad Bank Agarpara branch and the Purusandh Service Co-operative society Ltd,

AGRICULTURAL INDEBTEDNESS IN ORISSA

R. Panda.

Credit is a supreme necessity for the agriculturist everywhere. The history of rural economy alike in Europe, America and India has no less or more distinct than that agriculturist must and will borrow. So rural indebtedness as such is not necessarily objectionable nor is it necessarily a sign of weakness. But the fundamental objection against rural indebtedness in our country is that the bulk of it is incurred for unproductive purposes and it is far beyond the means of the people. Thus Frederic Nicholson writes, "Credit is a necessity and borrowing and indebtedness are useful or dangerous in proportion not merely to the use made of the sums borrowed, but in proportion as they are the result of a prudential foresight or of necessity extraneous to the demands of agriculture". The principal tragedy of rural debt in our country is that it has increased very rapidly and the Indian agriculture has not made the desired progress due to indebtedness of the cultivators. The farmers are caught in the vicious circles of mounting debts, low investment and low productivity.

ECONOMIC CHARACTERISTICS OF ORISSA

The economy of Orissa still continues to be predominantly agricultural in character with about 55 per cent of the total State income contributed by agriculture, about 80 per cent of the total population depending directly or indirectly on agriculture. Thus rural economy of Orissa being predominantly agricultural, non-agricultural occupations form only a minor source of income to the population. Besides, agriculture in Orissa is dominated by marginal and small farmers. According to the Agricultural census, 1970-71, small farmer (upto two hectares) in Orissa account for more than 76 per cent of the total farmers, operating an area of about 38 per cent of operational holdings. The marginal farmers (upto one hectare) account for more than 43 per cent of total farmers, operating an area of a little less than 12 per cent of operational holdings. On the other hand farmers having five hectares and above account for a little less than 7 per cent but control about 32 per cent of the operational holdings. Thus it is evident that there is a great deal of unevenness in land holdings in the

State. This shows that the economic development of Orissa depends on the development of agriculture. And the development of agriculture requires the development of small and marginal farmers in particular.

DEBT POSITION

In the post-independence period the government have adopted various measures to ameliorate the living conditions of the agriculturists particularly to relieve them from their age-old bondage of debt. From time to time various Committees and Commissions have been appointed to estimate the extent of rural indebtedness and suggest suitable measures to eradicate this evil. It has been pointed out that rural indebtedness is continuously increasing in India as well as in Orissa.

TABLE-1

Total Rural Debt of Cultivating Families
(Figures in Crores)

Year	India	Orissa	Source
1951-52	750	23	All India Rural Credit Survey 1951-52
1961-62	2788.93	31.17	All India Debt and Investment Survey, 1961-62.
1971-72	3921	74.13	All India Debt and Investment Survey, 1971-72

TABLE-2

Average Debt of Cultivating Families
(In Rupees)

Year	India	Orissa
1951-52	210	84.3
1961-62	205.4	54.9
1971-72	611.96	234.93

Table 2 shows that the average debt of the cultivating families is increasing. Though it is seen that the average debt of the cultivating household in Orissa is much lower than that in India, as a whole, yet the trend shows steady rise. Besides, cash loans, kind loans appear to be prevalent to a comparatively greater extent in Orissa. As per the report of the All India

Debt and Investment Survey, 1961-62, 12.9% of the aggregate debt of the cultivators was in kind in Orissa as on 30-6-1961. After 1961-62, this proportion has also increased. According to All India Debt & Investment Survey 1971-72, 19.7% of the aggregate debt of the cultivators was in kind in Orissa as on 30-6-1971.⁵ But the debt of the cultivators in kind was 2.5% at all India level as on 30-6-1971. This percentage of debt in kind is much higher in Orissa in comparison with other States also. The size of kind loans in the debt of cultivators in Orissa is evident from the existence of a number of grain banks in the State. In comparison with other States, the debt burden of the cultivating house hold in Orissa is much higher, when we take into account their value of assets.

TABLE-3

Average Debt Burden per Cultivating Household in selected States
as to 30-6-1971 (in Rupees)

State	Cultivators
Bihar	342.69
Gujarat	1238.72
Haryana	1190.28
M. Pradesh	461.72
Orissa	234.93
Punjab	1913.40
Rajasthan	949.88
U. Pradesh	371.64
All India	611.96

Source—All India Debt & Investment Survey 1971-72 Vol. I

TABLE-4

Average value of assets per cultivating
Household in selected States as to 31.6.71
(in Rupees)

State	Cultivators
Bihar	15539.07
Gujarat	18502.19
Haryana	41824.67
M. Pradesh	12362.03
Orissa	7382.04
Punjab	62788.77
Rajasthan	13947.09
U. Pradesh	16850.22
All India	14693.92

Source : All India Debt and Investment Survey 1971-72

The above two tables point out how the agriculturists in Orissa are over burdened with debt in comparison with other States.

What is worse is that in Orissa inspite of steady appreciation in land value the debt asset ratio of rural household has remained constant during the decade of 1961-62 and 1971-72. But with regard to all India level the debt asset ratio of rural household has declined from 6.94 percent in 1961-62 to 4.47 percent in 1971-72. The debt-asset ratio in case of cultivators in Orissa has slightly decreased although it has registered a substantial fall at the all India level.

TABLE-5

Debt-Asset Ratio for Orissa and All India

Sl No.	Occupation	Orissa		All-India.	
		1961	1971	1961	1971
1.	Cultivators	3.33	3.18	6.47	4.16
2.	Non-Cultivators.	3.56	6.30	12.11	8.42
3.	All Rural Households.	3.35	3.35	6.91	6.43

Source : *Economic Survey of Orissa*. Bureau of Statistics and Economics-1976 PP-69-70

The above table shows that the debt asset ratio in Orissa has remained more or less constant during the decade, 1961-62 and 1971-72.

With regard to various agencies that supply, finance in Orissa we find that adequate finance is not supplied by the institutional agencies in Orissa. The agriculturists in Orissa still depend to a large extent on the noninstitutional agencies. As we find when of the share non institutional agencies has declined considerably at the All India level by 1971-72, their share continues to be nearly 70 percent by 1971-72 in Orissa⁸. An analysis of cash loan outstanding as on June, 30, 1971 according to the credit agencies providing them would indicate the dependence of rural households on institutional vis-a-vis non-institutional sources.

TABLE-6

Cash Debt Owed to different Credit Agencies
by Cultivators as on 30th June 71, in Orissa

Agencies	Percentage
Government	9.2
Co-operative	22.1
Commercial Bank	0.8
Insurance	-
Provident Fund	0.4
Landlord	10.3
Agricultural Moneylender.	24.6
Professional Moneylender	15.2
Trader	1.6
Relatives	12.5
Others	3.3
Total :	100.00

The above table shows that the cultivating households still continue to be exploited by the private agencies. Thus the indebtedness of the cultivators is still grave in Orissa.

REFERENCES:

- 1) F. A. Nicholson, Report on Agricultural Banks-P-3.
- 2) Report of the All-India Debt and Investment Survey, 1971-72.
- 3) Report of the All-India Debt and Investment Survey, 1971-72.

I am deeply indebted to Dr. B. Mishra, Professor and Head of the Department of Analytical and Applied Economics, Uikal University for his valuable suggestions in preparing this article. The author himself is responsible for the mistakes, if any, in the article.

Rural Indebtedness of A Tribal Village in Mayurbhanj : Some Observations.

N. Nanda

A survey was conducted in March, 1981 in the village Andhari which is a purely tribal village in Mayurbhanj district and which is situated nearly ten Kms to the north of Baripada town. The purpose of the survey was to know about the various aspects of rural indebtedness in a tribal village. The households were selected at random and were approached on the basis of a questionnaire. Information was collected in respect of the items mentioned in the questionnaire. The findings of the study are as follows.

TABLE-1

Households by size of land holdings

1) Total No. of Households surveyed	30
2) Households with no land	2
3) Households with 1 & less than 1 acre	4
4) Households with more than 1 acre up to 5 acres.	16
5) Households with more than 5 acres up to 10 acres.	3
6) Households above 10 acres	

The table shows that more than half of the households belonged to the small and marginal farmers. The loan pattern of the households can be seen in the following table.

TABLE-2

Loan Pattern of the Households

1) Total value of loans of all households	Rs. 17800
2) Average loan per household	Rs. 563.3
3) Average loan of households up to 5 acres of land size	Rs. 438 09
4) Average loan of households of more than 5 acres of land size.	Rs. 955.5

According to the All-India Debt and Investment Survey of 1971-72 debt per household of all rural households of Orissa was Rs. 201-88¹. But it is seen in the table that in 1981 average loan or debt of surveyed households of the tribal village stood at Rs. 593.3. This shows that the tribal households were heavily indebted.

Indebtness by source can be seen in the following table.

TABLE-3

1) Total No. of indebted families	...	20
2) Total No. indebted to relatives	...	6
3) Total No. indebted to Banks	...	4
4) Total No. indebted to Co-operatives		Nil
5) Total No. indebted to Village Moneylenders		7
6) Total No. having mixed indebtiness (village money lender + bank + relatives)		3

The table reveals that none of the households were indebted to co-operatives because the village had no co-operative society. It is regrettable that institutional credit has not been made available through the co-operative and co-operative society has not been promoted in the tribal village which is not far off from the town. Had a co-operative society been there indebtedness under items (5) and (6) of the above table would have been less.

The percentage share of the different sources in the total loans of the households shown in the following table.

TABLE-4

Source	% Share
Banks	51.6
Co-operatives	Nil
Relatives	28.9
Village Moneylenders	19.5

The table shows that banks provided the largest percentage of the the total loans incurred by the households. As the village had no co-operative society the households had sought loan from the banks as loan from them appeared cheap to them. The interest for loan charged by the village moneylenders was found to be ranging from 12½ to 50% whereas the rate of interest on loans from banks had been only 10%. The households which borrowed from relatives paid interest ranging from nil to 10%.

The purposes and percentage share of the total loan for different purposes can be seen in the following table.

TABLE-5

Purpose	No. of loans	% share total loan
1) Consumption	4	16.5
2) Production	7	42.1
3) Consumption + Production	9	41.4

The above table shows that purely consumption loan formed a small percentage of the total loans. The burden of this loan would have been lighter had there been a co-operative society in the village.

Reference :

- 1) Agricultural Credit Project, Banking Plan, Orissa, 1976 Page-8

Agricultural Credit In Orissa : institutions and Performance

R. K. Pany

Three decades ago, the Committee of Direction of the All India Rural Credit Survey observed-“India is essentially rural India rural India is virtually the cultivator.”¹ This proposition, in other words, indicates that the problems of rural indebtedness in the country are basically related to cultivators. In view of this, any analysis pertaining to agricultural credit of a region centres mainly round the problems of rural indebtedness of the concerned region. Hence a study on agricultural credit in Orissa presents also the problems of rural indebtedness of the region, since the State is not only rural in character but also agriculture is the dominant sector of the State economy.

As per the official policy at the national level prior to the late sixties, co-operatives were the principal institutional agency to provide agricultural credit. It is observed from the findings of the two expert bodies,² that the supply of such credit was inadequate in Orissa and the State was identified as a co-operatively backward region. The bank nationalisation of 1969 and the setting up of regional rural banks(RRBs)and expansion of branches in rural areas have brought a sea change in the institutional framework of the rural credit of the State. The increase in percentage of the number of rural branch offices of commercial banks to the total, from 25% in 1969 to 63% in 1979³ and the opening of 6 RRBs in 8 districts with 186 branches as in June 1980⁴ have no doubt transformed banking system from class banking to mass banking. With this, the attainment of viability in some areas of the co-operative credit structure is a welcome development of the seventies. Considering all these, the present study was planned to evaluate the performance of the institutional credit agencies in supplying agricultural credit in Orissa and the specific objective was to examine the extent to which institutional credit supply for agriculture has become adequate.

LIMITATIONS

The major limitation of the study is that agriculture refers only to crop production. Secondly, credit is related to production and investment and excludes consumption credit. Thirdly, institutions, viz., co-operatives,

commercial banks and regional rural banks (RRBs) have been taken into account. Lastly, the reference period is from 1959 to 1978 for which latest data are available.

RESULTS AND DISCUSSION

(i) *Assessment of Credit Requirement.*

The assessment of credit requirement is a difficult task either at macro or micro level. While macro level assessment is being criticised as tentative or mere guess work,⁶ micro level assessment, however reliable and accurate may be, is only restricted to a limited area. Hence the solution lies with the conduct of a series of micro level investigations under different conditions to arrive at any aggregative level of assessment. But this is also difficult on the part of any individual researcher owing to time and resource constraints. For these difficulties, the assessment of the broad magnitude of credit requirement at the regional level has been made even by R. B. I., Commercial Banks in their District Credit Plans, State Governments,⁶ and many individual researchers⁷, taking into account some generally accepted norms of credit requirement on per hectare basis in case of production credit requirement.

(a) *Production Credit Requirement*

The norms fixed by the National Commission on Agriculture (NCA) for the projection of production credit requirement have been accepted in the present study. Norms of finance have been fixed for irrigated and unirrigated net sown areas. As per the NCA criteria, 100 per cent of the requirement of the irrigated area is to be financed institutionally, but only 50 per cent of that of the unirrigated area. By this method, total credit requirement arrived at, is to be achieved by 1985, and 45 per cent of it by 1978-79. However, for the year 1977-78, the assumption has been made here that 40 per cent of the total estimated credit requirement is to be met institutionally.

As per the Sixth Plan Draft (1980-85) the total net sown area of the State would be 66 lakh hectares out of which 22 lakh hectares would be irrigated. By the above method, the production credit requirement for irrigated area and unirrigated area come to Rs. 132 crores and Rs. 99 crores respectively, the total credit requirement adding up to Rs. 231 crores at the year ending 1985 and 40 per cent of this, i. e. Rs. 93 crores may be the estimated production credit requirement for the whole of the State during 1977-78 (Table 1).

TABLE—1
Credit requirements for Agriculture

Types of Credit/Area	Cropped Area (in lakh hect.) 1985	Scale* of Finance per/ha. Rs.	Total Credit Require- ments (in crores Rs.)	Credit Require- ments in (1965 (in crores Rs.)	Credit Require- ments in (1978 (in crores Rs.)
1	2	3	4	5	6
(a) Production Credit					
Irrigated	22	600	132	132	53
Unirrigated	44	450	198	99	40
Total**	66	—	330	231	93
(b) Investment Credit	—	—	—	—	5***

Sources : * Government of India, Report of the National Commission on Agriculture Part XII, 1976, p p-2, 103.

** Government of Orissa, Sixth plan 1980-85 And Annual Plan 1981-82 Orissa (Draft) 1980, p. 451,

*** Government of Orissa, Agricultural Credit Project Banking Plan Orissa, 1976 pp-54-55.

(b) Investment Credit Requirement

The assessment of investment credit requirement is more difficult compared to that of production credit requirement due to varying amounts of capital farm expenses in different regions. For example, in Orissa, while the average gross capital expenditure in farm business was Rs. 90 per cultivating household in the coastal region, the corresponding amounts were Rs. 49 and Rs. 75 in southern and northern regions respectively during 1972^o. Like irrigation as the major determinant of the production credit requirement, there is no such major factor for the assessment of investment credit requirement. Hence assessments of production credit requirements are very common in the state of literature and, on the contrary, studies related to the assessments of investment credit requirements are limited in number. Owing to these reasons, one may take into account the targets fixed for the supply of investment credit as the credit requirements. But such targets are mainly fixed on the basis of the past trend of investment credit. Since the supply

of investment credit was at a lower level during the Fourth Plan, the Fifth Plan targets for MT credit supply and LT credit supply were placed at Rs. 25 crores and Rs. 62 crores respectively*. These amounts appear to be quite meagre in the context of high investment credit potential in the State. Hence investment credit requirement as envisaged under the Short-term Action Programme (STAP) over a three-year period from 1977-78 and 1979-80 may be taken into account. As per such programme, out of the total financial outlays of Rs. 181 crores, if deductions are made to the extent of Rs. 23 crores towards subsidy/downpayments, the magnitude of the investment credit requirements come to Rs. 158 crores for the reference period. One third of this amount, i. e., Rs. 52.66 crores or say Rs. 53 crores may be taken as the investment credit requirements for the year 1977-78 (Table 1).

(ii) *Supply of Institutional Credit and its Inadequacy*

Data pertaining to the supply of credit made by the institutional agencies during 1968-69 and 1977-78 are presented in Table 2.

TABLE-2
Supply of Institutional credit and the credit Gap.

Type of Credit/ Agencies			Rs. in crores	
	1968-69	1977-78	Credit Require- ment	Credit Gap 1977-78
1	2	3	4	5
PRODUCTION CREDIT				
PACs*	9.91	24.45	—	—
Commercial	—	13.06	—	—
Banks★				
Total	9.91	37.51	93.00	55.49 (59.7)
INVESTMENT CREDIT				
PACs*	1.39	5.95	—	—
Commercial	0.11	13.78	—	—
Banks★				
PCDBs	2.12	5.88	—	—
Total	3.62	25.61	53.00	26.39 (51.7)

Sources : * R. B. I., Statistical Statements Relating to Co-operative Movement in India, 1968-69 and 1977-78 Issues.

★ D. B. O. D. Returns, Local Office, Bhubaneswar.

Note :- Figures within parentheses indicate credit gap in percentage.

The table indicates that the total supply of Production credit has stepped up from Rs. 9.91 crores in 1968-69 to Rs. 37.51 crores in 1977-78. Though such increase appears to be impressive, yet total supply has met only 40.3 per cent or say 40 per cent of the total production credit requirements. In case of investment credit also the total supply has increased from Rs. 3.62 crores to Rs. 25.61 crores during the corresponding period. Despite such increase, the total supply has met only 48.3 per cent or say 48 per cent of the investment credit requirement. On the other hand, these results indicate that institutional credit supply has still remained inadequate since the credit gaps are of the order of 60 per cent and 52 per cent in case of production and investment credit requirements respectively.

This inadequacy of credit supply is also further substantiated from another exercise worked out on the basis of the parameter of per hectare credit supply in some major States of the country. The relevant data are presented in Table-3. It is revealed that per hectare institutional credit supply is only Rs. 78 as against Rs. 172 at the all-India level during 1977-78. Secondly, while the total gross cropped area of the State covers 4.6 per cent of the total gross cropped area of the country, the share of the State in the total supply of institutional credit is only 2.1 per cent.

(iii) Conclusion

It can be concluded from the present study that despite the introduction of the multi-agency approach, the supply of institutional credit for agriculture is still inadequate in the State. This corroborates the findings of the Review Committee that "mere establishment of additional agencies is no answer to the problem of deficient rural credit system"¹⁰ Briefly, it may be said that reasons for credit in the State are mainly, technological, structural and operational. Mere quantitative expansion in the number of branches of commercial banks and RRBs and contraction in the number of PACSs in the name of viability, may not make credit supply adequate and production oriented. Hence qualitative measures like effective supervision over the end use of credit, better collection of overdues, (57% of PACSs level, 32% at PLDB level and 58% at bank level as on 30.6.76), proper evaluation of credit schemes, streamlining the loan policies and procedures, better co-ordination among the financial agencies and between such agencies and developmental agencies even at the Block level, provision of consumption credit to the poor cultivators, and introduction of crop insurance scheme, may be suggested not only to increase the volume of credit but to make it more production oriented. Lastly, since demand for credit is also important

like supply of credit, the State Government should play a more dynamic role in providing infrastructural facilities and strengthening the extension wings to stimulate demand for credit which is lagging in the region. Thus, greater emphasis may be given on the qualitative aspect during eighties to reap the full benefits of the existing institutional credit system for agriculture in the State.

TABLE—3
SUPPLY OF INSTITUTIONAL CREDIT FOR AGRICULTURE STATE—WISE

Rs. in lakhs.

States	Gross cropped area in 000 hec ¹	Co-operative credit 77-78 ²	Bank Credit 77-78 ³	RRBs & PACSs financed by CBs 77-78 ³	Total Credit	Per Hectare Credit supplied* (Rs.)
1	2	3	4	5	6	7
Andhra Pradesh	129,58 (7.6)	143,71	182,07	2,88	328,66 (11.3)	254
Assam	31,77 (1.9)	2,23	44,72	46	47,41 (1.6)	149
Bihar	112,87 (6.7)	26,46	48,77	7	75,30 (2.6)	67
Gujarat	101,98 (6.0)	142,88	74,72	—	217,60 (7.4)	213
Haryana	54,51 (3.2)	96,15	53,48	4,00	153,63 (5.3)	282
Himachal Pradesh	9,24 (0.5)	6,36	6,26	—	12,62 (0.4)	137
Jammu & Kashmir	9,23 (0.5)	3,05	3,31	66	7,02 (0.2)	76
Karnatak	111,59 (6.6)	92,03	144,76	10,97	247,76 (8.5)	222
Kerala	29,81 (1.8)	92,90	67,98	—	160,88 (5.5)	540
Madhya Pradesh	213,56 (11.6)	76,66	68,99	1,60	147,25 (5.0)	69
Maharashtra	196,64 (11.6)	176,75	149,62	5,81	332,18 (11.4)	169
Orissa	77,33 (4.6)	56,32	23,58	78	60,68 (2.1)	78
Punjab	62,55 (3.7)	105,67	83,59	—	189,26 (6.5)	393
Rajasthan	171,64 (10.1)	75,30	58,86	28	134,44 (4.6)	78
Tamil Nadu	72,35 (4.3)	163,01	149,12	—	312,13 (10.7)	431
Uttar Pr.	230,98 (13.6)	204,58	124,70	2,65	331,93 (11.4)	144
West Bengal	79,58 (4.7)	61,21	98,44	2,75	162,40 (5.5)	204
All-India	16,95,21 (100.0)	15,05,27	13,82,97	32,91 (100.0)	29,21,5	172

Sources: 1 Agriculture in Brief—17th Edition.

2 Statistical Statements Relating to Co-operative Movement in India 1977-78,

3 Banking Statements, B. S. R., Summary Results, June, 1978.

Note: Figures in brackets are percentages to the total.

1. R. B. I., All India Rural Credit Survey, Report of the Committee of Direction, Vol. II, Bombay, 1964, p. 5.
2. R. B. I., Report of the All India Rural Credit Review Committee, Bombay, 1969, pp. 416-417 & Organisational Framework for the implementation of social objectives, Bombay, 1969, p. 28.
3. R. B. I., Banking Statistics, Basic Statistical Returns, Summary Results, June 1979, Bombay, pp. 3-4.
4. R. B. I., Report on Trend and progress of Banking in India, 1979-80, p. 52.
5. B. M. Desai & D. K. Desai, Farm Production Credit in changing Agriculture, I. I. M., Ahmedabad, 1971, p. 1.
6. UCO Bank. Credit Plan for Puri District (1980-82) Mimeographed, pp. 80-82 and Government of Orissa. Agricultural Credit Project. Banking Plan Orissa, 1976, pp. 49-50.
7. K. Subbarao, 'Institutional Credit, Uncertainty and Adoption of HYV Technology: A comparison of East U. P. with West U. P. "IJAE, January-March, 1980.
8. R. B. I., All India Debt and Investment Survey, 1971-72.
9. R. B. I., All India Debt and Investment Survey, 1971-72, p. 54.
10. R. B. I., Regional Rural Banks Report of the Review Committee, Bombay, 1977, p. 32.

—O—

	(1000)	(1000)	(1000)	(1000)
All India	14,92,51	1,25,73	1,25,73	1,25,73
West Bengal	7,92,51	6,12	6,12	6,12
Uttar Pradesh	7,92,51	6,12	6,12	6,12
Madhya Pradesh	7,92,51	6,12	6,12	6,12
Karnataka	7,92,51	6,12	6,12	6,12
Kerala	7,92,51	6,12	6,12	6,12
Andhra Pradesh	7,92,51	6,12	6,12	6,12
Tamil Nadu	7,92,51	6,12	6,12	6,12
Rajasthan	7,92,51	6,12	6,12	6,12
Goa	7,92,51	6,12	6,12	6,12
Orissa	7,92,51	6,12	6,12	6,12
Assam	7,92,51	6,12	6,12	6,12
West Bengal	7,92,51	6,12	6,12	6,12
Uttar Pradesh	7,92,51	6,12	6,12	6,12
Madhya Pradesh	7,92,51	6,12	6,12	6,12
Karnataka	7,92,51	6,12	6,12	6,12
Kerala	7,92,51	6,12	6,12	6,12
Andhra Pradesh	7,92,51	6,12	6,12	6,12
Tamil Nadu	7,92,51	6,12	6,12	6,12
Rajasthan	7,92,51	6,12	6,12	6,12
Goa	7,92,51	6,12	6,12	6,12
Orissa	7,92,51	6,12	6,12	6,12
Assam	7,92,51	6,12	6,12	6,12

Source: 1. Government of India - 1979-80
2. All India Debt and Investment Survey, 1971-72
3. Regional Rural Banks Report of the Review Committee, Bombay, 1977
Figures in brackets are percentages to the total

District Credit Plan and Rural Credit in Ganjam District :

S. Mukherjee,

S. K. Panda

The Government have launched many schemes to improve the living conditions of the rural people. Till 1977 there was no comprehensive assessment of the credit needs for the different schemes in a district. The need was felt to prepare elaborate credit plans for each district, taking into account both the supply of and demand for credit. The district credit plan thus is a blueprint designed for estimating the financial requirements needed for the optimum utilisation of the available human and physical resources in a district¹.

The purpose of the paper is to discuss how far the district plan has been able to tackle the problem of rural credit in Ganjam district.

Traditionally indebtedness means impoverishment. To avoid indebtedness as far as possible is undoubtedly an eminently well established rule of prudence in private finance². But today loans incurred for productive purposes are not considered indebtedness in the above sense. Such loans generate additional income and increase the repaying capacity of the borrowers. Thus loans available to the people through the credit plan, if misused, would be burdensome. The success of the projects depends on the utilization of the funds for the right purpose.

The Andhra Bank as the lead bank of the district has prepared the district credit plan. The objectives³ of the District Credit Plan are :—

- (a) removal of unemployment and underemployment.
- (b) raising the standard of living of the poorest section of the population.
- (c) reducing regional imbalances through area approach and provision of some of the basic needs of the people belonging to the poorer sections of the community.

These objectives are to be achieved by giving :—

- (a) loans for labour-intensive schemes which generate employment in agriculture, industries and service sectors.

- (b) loans to increase productivity in agriculture and allied sectors.
- (c) loans to the weaker sections of the population who mainly stay in the rural areas, such as, small and marginal farmers, agricultural labourers, scheduled caste and scheduled tribe people.

Keeping the above objectives in view the Andhra Bank estimated the credit demand for various sectors and regions in the district in consultation with the district and block level, development agencies and various financial institutions operating in the district.

The main financial agencies associated with the plan were.—

- (a) The District Co-operative Central Bank and their societies.
- (b) The Co-operative Land Development Bank.
- (c) The Scheduled Commercial Banks.
- (d) The State Financial Corporation.

The first District Credit Plan came into operation on 1-4-77 and expired on 30-6-79. An assessment of the first D.C.P. is essential at this juncture when the second D.C.P. is being launched.

The Sectoral provision under the first D.C.P. and consolidated schemewise performance of the Financial Institutions from 1-4-77 to 30-6-79 is shown in the following table*.

SECTORAL ACHIEVEMENT

Sector	Credit Plan provision	Achievement as on 30-6-79	Col 3. as% of Col. 2
1	2	3	4
(Rupees in Lakhs)			
Agriculture :—			
(a) Crop Loans	1146.57	900.55	79%
(b) Term Loans	989.63	865.02	88%
Industries :	197.64	81.56	41%
Services :	216.70	170.89	79%
Total	2,550.54	2,018.02	79%

Details regarding the impact of the first D.C.P. on income and employment are not yet available. But from the table it is clear that its performance in the industrial sector is highly disappointing. There is greater scope for reducing unemployment and underemployment through provision of credit to the small scale and cottage industries in the district in addition of such credit being also made available to the large number of small and marginal farmers of the district.

The shortfall in the optimum realisation of the impact of the Ganjam D.C.P. is due to the following constraints.

- (a) Lack of co-ordination between the government agencies and Financial institutions.
- (b) Lack of infrastructural facilities.
- (c) Lack of adequate trained staff and their proper orientation to cope with the increasing needs of the developmental banking.
- (d) Lack of balance in bank branch expansion resulting in overfinancing of certain areas and neglect of certain underdeveloped areas.
- (e) Faulty formulation of Credit Plan.

Success of credit plan depends on the extent to which there has been the integration between the credit plan and development plan. The first DCP covered the period (77-79) when the district was taken as the unit of micro level planning. Indian five year plans have been laying stress on micro level planning. In the multilevel planning structure the district was taken as the micro unit as far back as 1969 but now the block is considered as the micro unit⁷. What ever may be the size of the micro-unit all attempts should be made to see that the above mentioned constraints are avoided so that a credit plan becomes successful.

For the success of the micro level planning in the district, two things are necessary, viz, firstly the zilla parishad should be revived; secondly, each district should have a district planning Board. This should be an expert body consisting of economists, statisticians, sociologists, representatives of people and administrators.⁸

District planning is necessary for formulation of block level planning. Micro Planning at the panchayat and block level are in their embryonic forms. With the formulation of district planning machinery lower order planning will receive stimulus⁹. In the absence of district plan the DCP of

Ganjam has been prepared on the basis of on-going schemes at different govt. departments and agencies as stated earlier, in an uncoordinated and piecemeal manner. As the DCP is for a period of two years and is/or co-termus with the development plan, it cannot take into account long term perspective of development.

References :

1. Andhra Bank Credit Plan for Ganjam District—pp. 1, 1977
2. Lerner A. F. The Burden of National Debt L. A. Metzler et al (Eds) Income Employment and Public Policy; Essays in Honour of Alvin H Hansen 1948, p. 255
3. Credit Plan 1980-82 Ganjam District Andhra Bank Central Office, Hyderabad p 195.
4. Ibid, page-173
5. District Statistical Hand Book 1974 and 1975 District statistical Office Ganjam p. 135
6. Credit Plan, 1980-82. Op. cit Table VII P. 21.
7. Draft Five year Plan, 1978-83, Planning Commission, Govt. of India P. 160
8. Dr. K. N. Buchi Micro Planning and Economic Development in the District of Ganjam Orissa, Unpublished Ph.D Thesis Berhampur Univ, 1980, P. 100
9. Ibid, P, 100

Political Economy of Orissa and Rural Indebtedness

(Summary)

G. B. Nath

Money lending as an institution has flourished in Orissa not wholly because of the economic distress of the peasantry, but because of the fact that there has been no revolutionary changes in property relationship. The long standing difficulties in the socio-economic structure have impoverished the peasantry and aggravated their sufferings. The only effective measures to eradicate this chronic social ill is to effect a change in the base level. The present paper suggests a basic structural change in the economy to solve the problem of indebtedness.

During the last part of the 18th century and first half of the 19th century there was in prevalence a pre-capitalist form of economy. In the Princely States the village headman was responsible for payment of revenue to the rulers and this system also persisted during the British period. After Independence the merger and abolition of Princely States did not bring about any specific change in the property relations. The socio-economic structure of the village continued with hierarchical society. In this system the poor peasants, the agricultural labourers and village artisans were directly exploited by the non-cultivating rich peasants. Thus the bourgeoisie Indian ruling class apparatus strengthened the money lending institution. Though the Government has appointed many committees and enacted many laws against the system, the practice of enslaving the indebted peasants is still prevalent. It is futile to effect a change in the super structure ignoring the change in the base level.

Credit Needs of Peasants with Special Reference to Tribals in Mayurbhanj District

(Summary)

M. K. Sarangi

Credit is not necessarily objectionable nor is borrowing necessarily a sign of economic weakness with the development of agriculture during planning period in India, there has been manifold increase in the credit needs of the farmers.

In Mayurbhanj, the majority of people are rural and more than 50% of population consists of tribals. Their economic backwardness has increased their need for credit both for productive purposes and for meeting consumption needs at the subsistence level. They have been exploited by private money lenders through ages.

Later on the LAMPS and the Gramya Banks have opened up their branches in different parts of the district. However, it has not yet been possible on their part to delve deep into traditional tribal and rural sector in provision of adequate amount of credit.

A micro study of the Problem of Rural Indebtedness with reference to the village Panada in Ganjam district

(Summary)

P. K. Mahapatro

Panada is a small village in Ganjam District consisting of 200 households. The population of village is 1400. It is mostly an agricultural village and 90% of the households have agriculture as their only occupation. There are five households possessing land more than 10 standard acres, 40 households possessing 5 to 10 acres and 40 other households possessing 2 to 5 acres of land. Besides, 90 households possess land less than two acres. And the rest 25 households consist of landless labourers. 70 to 80 persons of this village are working in Government and various private concerns. They have got landed property in the village, and their lands are given for Bhagchas.

A survey on the problem of indebtedness reveals that the debt incurred by the people was mostly for unproductive purposes.

The position has not changed inspite of appearance of co-operative credit societies, land mortgage banks and commercial banks near the village. Most of the debt are incurred by small and marginal farmers, landless labourers, and tenant farmers. The percentage of unproductive borrowing has been as high as 62%.

There have been no S.F.D A and one M.F.A.L. development agencies working in the area. The average debt of a cultivating family is increasing inspite of thirty years of planning.

A few suggestions may be noted :

1. Credit should be given for productive schemes and regular supervision is necessary to ensure that Credit is used for the purpose for which it is given.
2. All old debts should be wiped out from a fixed date.
3. Loan procedures should be simplified, and there should be more banks and Co-operative credit agencies in rural areas.
4. The marketable surplus of the cultivators should be purchased directly by the Government at a suitable price.
5. Irrigation facilities, provision of fertilisers and improved seeds should also be made along with the supply of credit.

Rapporteur's Report On

"Problem of Rural Inebtedness"

Raj Kishore Panda

In all eleven Papers were presented. Out of the eight papers, four papers dealt with agricultural credit. Others dealt with the problem of indebtedness. Particularly, two papers approached the problem of indebtedness through case studies. The papers presented can be grouped under two heads.

- (1) Agricultural Credit and its problems,
- (2) The problem of rural indebtedness.

Shri J. P. Pattanaik in his paper, "Annual Agricultural Credit Need of Sambalpur Estimates and Plan Fulfilment" estimates the credit needs of agricultural households of the Sambalpur District. His analysis of agricultural loan falls under two heads; (i) crop loan and (ii) Term loan. Regression analysis was followed to estimate the crop loan.

Shri M. K. Sarangi in his paper "Credit Needs of Rural Peasants-with special reference to Tribals in Mayurbhanj district" analyse the problem of credit needs of tribals. He argued that adequate finance must be supplied to the tribals to improve their economic standard. As regards the source of credit, Mr. Sarangi points out that it is the moneylenders who still dominate and the working of the co-operatives is not satisfactory. He has discussed the working of LAMPS in the district and has offered certain suggestions to improve their functioning.

Shri R. K. Pani in his paper "Agricultural Credit in Orissa-Institutions and Performance" evaluates the working of institutional agencies in providing agricultural credit in Orissa. In estimating the credit requirement, he analyses both production credit and investment credit. Mr. Pani points out that the supply of both these types of credit by the institutional agencies is less than the requirement. He argues that mere multiplying the number of institutional agencies will not solve the problem and emphasises on qualitative measures for proper utilisation of credit. He further advocates the coordination of different institutions in a particular area so as to make credit more productive.

Dr. B. Bhuyan and Mrs. B. Mohanty in their paper "A Critical Analysis of Indebtedness in Rural Sector of Orissa" confine their analysis of indebtedness to the cooperative credit agencies. They have given a comparative picture of the extent of indebtedness among the various districts and among large and small cultivators in Orissa. They have fitted correlation co-efficient between annual agricultural production and loan overdue and come to the conclusion that there exists positive co-relation between these two factors.

Mr. R. K. Panda in his paper "Agricultural Indebtedness in Orissa" points out that the debt burden of the agriculturists in Orissa has increased and the money lenders have still a big place in supplying credit to the agriculturists.

Shri G. B. Nath in his paper "Political Economy of Orissa and Rural Indebtedness" values the existing property relationship as the basic cause of indebtedness of the peasantry. To solve the chronic indebtedness of the cultivators, he argues for a drastic change in the socio-economic structure of the society.

Shri B. C. Parida in his paper "Repayment Problems of Small and Marginal Farmers-A case study" points out that the mounting overdues has led to drastic reduction in recycling of funds and declining profitability of public sector banks and commercial banks. Mr. Parida points out that due to bank finance though the productivity of paddy, potato etc. has increased still the repayment of loans by the cultivators is not upto the mark.

Mr. S. Mohanty in his paper "Irrigation and Agricultural Indebtedness A case study in Salandi Command area" has analysed the impact of irrigation on utilisation of credit and extent of indebtedness among different categories of farmers. He points out that marginal farmers incurred more loan in comparison to their land than the large farmers. But percentage of overdues were less for small farmers.

SUMMARY OF GROUP DISCUSSION

After the presentation of papers, there was a lively discussion on this topic. Dr. M. Uppadhyay of the Reserve Bank of India, Bhubaneswar participating in the discussion made some pertinent observations. He advocated coordination between researchers and bank officials to implement different programmes fruitfully. He quoted Sivaraman Committee for

providing consumption loan to the cultivators. He did not appreciate the present credit plans of different commercial banks and pointed out that there is no proper statistical framework in such plans.

Summing up the discussion, the President of the session Dr. Bidyadhar Mishra threw light on certain key problems of the topic and pointed out various ways to solve them. Dr. Mishra pointed out that institutional agencies are gaining ground in the rural areas and availability of credit is now greater. As regards the problem of mounting overdues he remarked that the people are having the notion that loans from institutional agencies will be written-off. He was of the opinion that the present supply of credit by the banks is not adequate. According to him the banks should provide more finance to the agriculturists. But at the same time, measures must be adopted by the banks to recover the loan amount and there should not be encouragement from the side of any Government for non-repayment of loans taken from institutional agencies.

SUMMARY OF GROUP DISCUSSION

After the presentation of papers, there was a lively discussion on the topic. Dr. M. Upadhyay, of the Reserve Bank of India, Bhubaneswar, participating in the discussion made some pertinent observations. He advocated co-ordination between researches and bank officials to implement different programmes fruitfully. The group discussion Committee for

MEMBERS OF THE ASSOCIATION FOR THE YEAR-1981

Ravenshaw College, Cuttack

1. R. C. Sarangi
2. B. K. Mohanty
3. N. Misra
4. B. K. Bose
5. A. K. Mohanty
6. Smt Laxmi Swain
7. Smt. Suvada Mohanty
8. Smt. Manorama Mohapatra
9. Smt. J. Ray
10. S. N. Misra
11. B. K. Mohanty
12. R. N. Patnaik
13. Dr. G. C. Kar
14. S. N. Misra,
15. S. N. Das,

Ravenshaw Evening College, Cuttack.

16. A. K. Mohapatra
17. P. K. Nayak

Khallikote College, Berhampur.

18. Dr. Manoranjan Das
19. N. P. Patra,
Vice-Principal
20. R. P. Choudhury
Deptt. of Commerce,
21. K. P. Patro
22. Gunakar Roul
23. K. C. Maharana
24. S. Panigrahi
25. R. P. Behera
26. B. K. Sarangi
27. Trilochan Mohanty
28. S. K. Panda
29. S. Mukherjee
30. R. K. Das, Science College
Chatrapur, Ganjam.
31. Dr. K. N. Buchi, Science College
Chatrapur Ganjam.

32. A. B. Sahu, Reader in Economics,
Anandapur College, Keonjhar,
33. N. Acharya, K. B. D. A. V. College
Nirakarpur, Puri,

Govt. Women's College, Berhampur

34. Smt P. Shanta Devi
35. Miss. Puspallata Misra

Bhadrak College

36. A. K. Jena
37. B. Patra
38. S. Sahu
39. K. P. Mohanty

B. J. B. College, Bhubaneswar.

40. R. N. Mohanty
41. D. D. Panigrahi
42. H. K. Misra
43. Binodini Das

BJB Evn. College, Bhubaneswar

44. M. K. Mohanty
45. P. K. Nayak
46. Smt. S. Patnaik

OUAT, Bhubaneswar.

47. Dr. B. Misra
Vice Chancellor
48. Dr. B. C. Hota
Deptt. of Agricultural Economics.
49. Dr. B. Bhuyan,
Asst Director, Firm Management,
50. J. P. Singh
Deptt. of Agricultural Economics
51. J. K. Rath,
Deptt. of Agricultural Economics.
Utkal University
52. B. B. Patnaik, Teacher Fellow,
Dept. of A & A Economics

53. Dr. S. C. Mallick, Field Officer,
Comprehensive Scheme
54. Bhagabat Misra
Directorate of Correspondence
Course
Utkal University
55. Sudhakar Panda,
Department of Anal. & Appl.
Economics
56. B. B. Patnaik
Teacher Fellow in Economics
57. S. N. Mishra
Research Officer (R. B. I.)
58. D. Mohapatra
Reader in Economics
59. R. K. Panda
Teacher Fellow in Economics
60. T. Satapathy,
Teacher Fellow
61. Dr. Basudev Sahoo,
Reader in Economics
62. A. K. Mitra
Deptt. of Anal. & Appl. Econ.

Berhampur University.
63. Dr. Bibekananda Das
Professor of Economics
64. G. P. Acharya,
Reader in Commerce

CUTTACK
65. B. B. Misra
Secretary, Greater Cuttack
Improvement Trust,
66. N. C. Sahu
Small Industries Promotion
Officer (EI), SISI Kanika Road,
67. R. N. Kar
Small Industries Officer (EI)
SISI Kanika Road,
68. B. Nayak
JKBK College
69. Satyabadi Misra
College of Cost Accountancy &
Management,
70. B. C. Parida,
Professor of Economics
College of Cost Accountancy
& Management
71. Binoy B. Misra,
Secretary, Greater Cuttack
Improvement Trust, Cuttack
72. B. K. Mohapatra
Joint Director of Industries,
Orissa, Directorate of
Industries, Cuttack.
73. Dr. Sadasiv Misra
Professor Para, Cuttack
74. R. K. Patnaik,
Ravenshaw Evening College
75. S. N. Das,
Govt. Evening College Cuttack.
76. A. K. Mohapatra
Ravenshaw Ev. College
77. R. C. Ray, I. E. S.
Dy. Director, SISI
78. D. Papa Rao
Asst. Director, SISI

BHUBANESWAR
79. B. Subhalaxmi,
R. D. Women's College
80. Smt. Bedabati Mohanty
Qr. No. 27/3 Type YA Unit 2.
81. Dr. Chakradhara Misra
Additional Secretary
Planning & Coordination
Department, Orissa Secretariat
82. Dr. D. C. Misra
Qr. 9/2 Unit 1

83. Dr. Bidyadhar Mishra
Ex Vice Chancellor
Utkal University, Sahid Nagar
84. R. K. Misra
Sreeramnagar, Bhubaneswar
85. Dr. G. N. Dash
D-8/1 Unit-9
86. Smt. Satyabhama Das
R. D. Women's College
87. Smt. I. D. B. Misra
Rajdhani College,
88. Smt. Kanak Manjari Das
Govt. Women's College Baripada
MPC College, Baripada.
89. Narottam Nanda
90. K. K. Sen
91. Kulamani Biswal
92. Manmohan Das
93. R. C. Agrawal
Vice Principal
94. Bhaskar Ch. Jena
ROURKELA
95. Surendra Swain
Rourkela Evening College,
96. K. B. Das,
Ispat College, Rourkela
97. Smt. Sarojini Das,
Ispat College,
98. K. N. Mohapatra,
Rourkela Ev. College
BARGARAH
99. P. Nayak,
Panchayat College
100. Jayagopal Tripathy
Panchayat College,
101. R. R. Padhi
Panchayat College
102. Basanta Kumar Das
Banki College.
103. R. K. Choudhury
Banki College
104. Basanta Kumar Das
Boudha Panchayat College
Boudhraj-752014
105. S. C. Mahapatra
V. Debt College Jeypore.
106. Dr. R. N. Meher,
Kuchinda College,
Kuchinda-76822, Sambalpur.
107. B. B. Nanda,
M. College, Pallahara,
Dhenkanal.
108. Dr. Binayak Rath,
H. S. S, Deptt. , I. I. T. (Kanpur)
109. Smt. Santi Das,
Balasore Women's College,
Balasore
110. G. B. Nath
Deogarh College
111. Mahiranjana Das
Reader in Economics
U. N. College, Soro
112. B. Routray,
Vyasnagar College,
Jajpur Road
113. R. K. Choudhury
Banki College, Banki.
114. Bharati Das,
Banki College, Banki
115. G. B. Nayak
N. C. College, Jajpur
116. M. K. Sarangi
F. M. College, Balasore
117. B. Dash
Reader F. M. College, Balasore
118. P. K. Mohanty
G. M. College. Sambalpur
119. R. C. Misra
S. C. S College. Puri

- | | |
|---|---|
| 120. Smt. J. Udagata
P. N. Mahavidyalaya, Khurda | 128. Nilamani Panigráhi
Anandapur College, Anandapur
Keonjhar |
| 121. Smt. Indira Udgata
T. T. College, Sambalpur | 129. Lal Bihar Jena
P. N. College, Khurda |
| 122. B. K. Mohanty
Angul College, Angul | 130. Ramakanta Sahu
Vyasa Nagar College
Jajpur Road |
| 123. K. C. Nayak
Deogarh College, Sambalpur | 131. P. K. Mohapatra
Khemundi College,
Digapahandi, Ganjam. |
| 124. Gyanaranjan Mohanty
S. V. M. College, Jagatsingpur | 132. Sahadev Mohanty
Salipur College, Cuttack. |
| 125. P. Haridas
Reader in Economics
N. C. College. Jajpur | 133. Prof. R. C. Patnaik, Principal
Khemundi College,
Digapahandi, Ganjam |
| 126. R. K. Misra
N. C. College, Jajpur | 134. S. N. Behera,
Revenshaw College |
| 127. D. P. Patnaik
B. B. Mahavidyalaya
Chandikhole Cuttack. | |

LIFE MEMBERS OF THE ASSOCIATION

- | | |
|--|--|
| 1. Sri Pramoda Kumar Mahapatra
Administrative officer, CARE
9, Anupam Apartments
Behind Navarang High School
Narayanpura, Ahmedabad-3800.3
Gujarat State. | 6 Dr. Pravat Kumar Patnaik
J. N. University, Delhi |
| 2. Sri Bijoy Kumar Mohapatra, I. E. S.
Special officer (Plannin :)
Directorate of Industries
Killa Maidan, Cuttack | 7. Dr. G. S. Das, Reader in Econ.
G. M. College, Sambalpur |
| 3. Sri Kartik Ch. Rath,
Department of Econ.
Salipur College, PO, Salipur, Cuttack | 8. Smt. Jharana Ray
Ravenshaw College |
| 4. Sri Dayanidhi Pal,
Reader in Econ.
Salipur College, | 9. Sri P. C. Mohapatra,
D. A. V. College, Koraput |
| 5. Smt. Sashikala Patnaik
Rourkela Sc. College | 10. Smt. Kanakamanjari Misra,
R. D. Women's College
Bhubaneswar |
| | 11. Sri Kumarbar Das
Ispat College, Rourkela |
| | 12. Sri Bhabani, Prasada Dash,
Mahatab Road, Cuttack-3 |
| | 13. Gopabandhu Institute of Admi-
nistration & Trainnig, Shubaneswar 7. |

RURAL DEVELOPMENT

Edited by :

Dr. BAIDYANATH MISRA, M.A., A.M. Ph. D.

VICE-CHANCELLOR

Orissa University of Agriculture and Technology

BHUBANESWAR



ORISSA ECONOMICS ASSOCIATION

The Orissa Economics Association

Year		Host & Venue	President
1968	—	Ravenshaw College CUTTACK.	Dr. S. Misra
1969	—	Dhenkanal College, DHENKANAL.	Dr. D. C. Misra
1970	—	Khallikote College, BERHAMPUR.	Dr. Bidyadhar Misra
1971	—	Utkal University, Vani Vihar. BHUBANESWAR.	Dr. Baidyanath Misra
1972	—	Bhadrak College, BHADRAK	Dr. Chakradhara Misra
1973	—	Panchayat College BARGARH.	Prof. R. C. Patnaik
1974	—	Orissa University of Agriculture and Technology BHUBANESWAR	Dr. S. P. Gupta.
1975	—	Kendrapara College KENDRAPARA	Prof. H. K. Misra
1976	—	S. C. S. College PURI.	Dr. D. C. Misra
1977	—	Nimapada Collège, KONARK.	Dr. S. Tripathy.
1978	—	Berhampur University, BHANJA BIHAR.	Dr. Nilkantha Rath
1979	—	Utkal University.	Dr. K. Kanungo
1980	—	G. M. College, Sambalpur	Dr. P. K. Patnaik
1981	—	Orissa University of Agriculture of Technology BHUBANESWAR.	Prof. D. Mohapatra

WE SHINE IN THE GLORY OF OUR FORESTS

The glory that is Orissa, had emerged from the depths of the mighty forests. And so did we, in the year 1962 as the nation's first ever public sector Forest Corporation. Since then, our rise in the State's sky of prosperity has been meteoric. Like the growth of a tiny seed to a lofty tree, the Corporation from a humble beginning in 1962-63 with sale turn over of a paltry Rs. 16 lakhs has now assumed enormous proportions generating a sale turn over exceeding Rs. 40 crores. This will cross Rs. 50 crores next year. We now operate at a production level of 2,30,00m³ of timber, 3,45,000m³ fuelwood and market 4,00,000 quintals of Beedi leaves. Our annual contribution to the exchequer in shape of royalty alone is over Rs. 20 crores. We supply 4 lakh sleepers to the Railways valued of Rs. 7 crores and timbers to Coalfields, Ordinance Factories, DGS&D, Port Trusts and a multiplicity of Industries every year. We have embarked upon a massive plantation project covering 14,000 hectares of cashew and a programme for establishing many forest based Industries. In the process, we have carved-out a distinct mark in the Socioeconomic development of the State and the Nation as a whole.

But that is not the whole story.

We derive our strength from the Advasis and backward classes who inhabit our forests. In execution of our task we provide employment to over 2 lakh persons. The bulk of them are these denizens of the forests. Our motto is to protect and develop the total Forest Eco-system, of which they are an integral part.

Our bondage with them is indivisible inseparable.

For details please contact :-

THE ORISSA FOREST CORPORATION LIMITED.

(A GOVT. OF ORISSA UNDERTAKING)

SATYANAGAR, BHUBANESWAR-7

Gram : **FORESTCROP**

Telex : 0675-240

Phone : 51086 {
51269 { PABX.