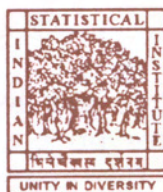


# Thirtyfourth Convocation Address

By

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*Government of India*

April 28, 2000



**Indian Statistical Institute**  
**Calcutta**

THIRTY FOURTH CONVOCATION ADDRESS  
OF THE  
INDIAN STATISTICAL INSTITUTE, CALCUTTA

Delivered by

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Deputy Chairman  
Planning Commission  
Government of India

28 April 2000

"DEVELOPMENT PERSPECTIVES FOR THE NEXT DECADE AND  
BEYOND"

It is a pleasure to be here with you at the Thirty-fourth Convocation of the Indian Statistical Institute. This institution is an enduring symbol of the vision of Prof. P.C. Mahalanobis, whose contributions not only to statistics but also to development policy and planning have been profound. May I take this opportunity to congratulate all of you who are graduating today. You are inheritors of a great legacy, the torch-bearers of a long tradition of excellence. One stage of your life is coming to a close, and the next is about to begin. You have acquired the skills necessary to make a success of your lives, but success is itself not uni-dimensional. You will have to look within yourself to decide the ingredients of success which best suit your own personal values and objectives.

Today I would like to take this opportunity to touch upon the shifts that have taken place in our development strategy and in our attitudes and approaches towards growth and development over the years, and to present a vision of the future of our country. There has been a tendency in recent years to treat the development strategy followed by India for the first forty odd years after independence as an undifferentiated *continuum*. Nothing could be further from the truth. Indian development strategies have evolved from Plan to Plan in response to the objective conditions of the economy and to the

challenges of the moment. Some of these changes have been strikingly bold and original, others more modest; but change there has been.

The Second Five Year Plan, which more than others bore the *imprimatur* of Prof. Mahalanobis, set the stage for our essential development strategy during the early years. The emphasis on the establishment of heavy industries, both as a means of rapid industrialisation and for raising the low savings rate of the economy, was certainly original in its conception, and reflects the tremendous confidence that our economic leadership had in its analysis and judgement. The Third Plan, conceived during a period of serious balance of payments problems and falling international prices of primary products, introduced the concept of import substitution as a strategy for industrialisation. The Fourth Plan came after one of the most difficult periods of Indian economic history. The period between 1965 and 1967 witnessed the worst drought in recent memory in large parts of north India. This traumatic experience brought food security to the forefront of our policy imperatives.

The Fifth Plan too was path-breaking in that it recognised that the benefits of an industrialisation-based growth strategy have not really impacted on the lives of a vast majority of our people. In other words, the so-called “trickle-down” effect has barely worked. The concepts of “minimum needs” and directed anti-poverty programmes were innovations of this Plan. The Sixth Plan for the first time recognised that the success of the Mahalanobis heavy industrialisation strategy in raising the savings rate of the country had created a situation where excess capacities were becoming evident in certain industries. A shift in the pattern of industrialisation, with lower emphasis on heavy industries and more on infrastructure, begins here. The Seventh Plan represents the culmination of this shift in perspective, and may be termed as the infrastructure plan. It was also during this period that a reappraisal of the import-substitution strategy begins. The Eighth Plan was overtaken by the crisis of 1991, and the economic reforms that came in its wake. The dramatic events and policy initiatives of the two-year plan holiday period between 1990 and 1992 demanded a full reappraisal of the planning methodology, and the Eighth Plan represents the first efforts at planning for a market-oriented economy.

Through all these changes, agricultural growth was viewed as an adjunct of industrialisation rather than as the center-piece of development strategy. At one level we have certainly succeeded. India today boasts of a highly diversified and productive industrial sector, which has steadily gained in strength over the years. At another level, however, our dreams have been belied. Even today above 70 per cent of our population live in the rural areas and more than 60 per cent derive their livelihood from agriculture. The state of rural India, although much improved since our independence, is still a matter of grave concern.

Despite considerable increases in agricultural output and expansion in non-farm rural activities, 37 percent of people in our rural areas continue to live below the poverty line. Despite having attained self-sufficiency in foodgrains, there is evidence that under-nourishment and malnutrition are endemic in our rural areas, particularly among women and children. This is a state of affairs that no democratic government with deep concern for the welfare of its citizens can ignore. Nor it is possible to ignore the widespread incidence of under-employment in rural areas. Too many of our people are working for long hours without commensurate returns for their labour. There is also evidence of greater casualisation of our rural labour force.

This problem is likely to become even more acute in the coming years. The projections made for the Ninth Five Year Plan indicate that our labour force will be growing at a rate of about 2.5 per cent per annum, which is the fastest growth that has ever been recorded. This high rate of labour force growth has its origins in the population explosion that occurred during the late 1970s and 80s. Our past experience and projections for the future indicate that even with optimistic assumptions almost half of this increasing labour force will have to be absorbed by agriculture. Therefore, unless our agricultural sector grows sufficiently fast, we face the spectre of growing unemployment and of even greater under-employment of our work force. This would place an intolerable burden on the fabric of our society.

This recognition has significantly affected our approach to development. The Ninth Five Year Plan reflects a subtle shift in our development perspective, but a shift which can have far-reaching implications. The fundamental message conveyed by the Ninth Plan is that the agricultural sector can no longer be treated as being a residual

or peripheral component of our growth path, but must occupy the centre-stage of all our development efforts. This recognition stems from two important observations. First, our experience since the mid-1980s, and more particularly since the initiation of economic reforms in the early 1990s, strongly indicates that the Indian industrial sector has reached a stage of maturity whereby it no longer requires focussed attention of the Government, whether it is promotion or protection. Our industrial and commercial entrepreneurs are perfectly capable of generating high growth rates in industry on their own, and the government needs only to play a facilitative role by creating a conducive policy environment. Second, it has become increasingly clear that there is tremendous potential that remains untapped in our agricultural economy. It is possible to achieve and sustain high levels of agricultural growth for a considerable period of time even on the basis of existing technology. With induction of new technology the prospects are virtually unlimited.

In the Ninth Plan, therefore, agriculture is projected to be the centre-piece of our development strategy. Its importance is highlighted in three distinct components of the broad objectives of the development strategy articulated in the Plan. First, it is viewed as being essential for the acceleration of the overall growth rate of our economy, not only by achieving a high rate of growth itself, but also through pulling up the growth rates of other sectors through a widespread distribution of purchasing-power and consequently of demand for industrial products and services. This represents a virtual inversion of the "trickle-down" theory, and embodies a belief that high agricultural growth can itself be an engine of growth. Second, agricultural growth is recognised to be the surest way to bring about equity in income and wealth, so that an accelerating growth rate will be reflected in rapid reduction in the incidence of poverty. The evidence for this is overwhelming, both from our own and from international experiences. Finally, it is central to all our efforts at self-reliance. No country can call itself secure unless it has food security, not only in the aggregate, but also at the level of every household and, indeed, every individual. Food security in a macro sense has informed our development policy for over thirty years now, but its link with household incomes and intra-household distribution has received less than adequate recognition.

Rapid growth of agriculture will not take place on its own. It will require concerted and coordinated efforts across a broad front. Some of these actions are directly within the domain of the government, but

many others require participation of a wide range of people and institutions. A sober and careful assessment of our resources indicates that both land and water will be constraints on our efforts. I do not see any possibility of increase in the cultivated area in the country. In fact, there is need for a total ban on diversion of agricultural land to non-agricultural use. Efforts are also needed to increased use of wasteland to meet the demands of urbanisation. Similarly, our water resources are under stress. Without active measures this may emerge as the single most important limitation to our efforts. There is, therefore, no alternative but to focus on raising the productivity of our land, water and, most importantly, human resources in a manner which is sustainable over the longer term.

The first, and possibly the most important, area of focus must be to raise the cropping intensity of our existing agricultural land. Climatically we are fortunate in that it is possible for us to have multiple crops practically all over the country. However most of our agricultural land continues to be under a single crop system, particularly in the rain-fed and dry-land areas. The problem here is water. Despite large investments in irrigation in the past, only about 40 per cent of our agricultural area is irrigated. The progress on this front, particularly in terms of major and medium irrigation projects, has slowed down considerably in recent years. Public investment in irrigation has fallen significantly. This is only partly due to resource constraints faced by governments both at the Centre and the states. A major reason is also that potential irrigation projects are located in areas which are either more difficult or environmentally more sensitive. This of course does not mean that efforts at tapping these resources in an environmentally sustainable manner and with due regard to the vexatious issues of rehabilitation and resettlement will not be carried forward. What it does mean is that considerably greater attention will have to be paid to rain water harvesting and increasing the irrigation potential through scientific watershed development. Furthermore, there is considerable scope to improve the efficiency of our existing irrigation infrastructure through better and more participative management practices.

The second area that needs to be addressed is that of infrastructure that supports not only agriculture but all rural economic activities. A number of recent studies have indicated that the rate of growth of rural incomes and reduction in rural poverty are most strongly influenced by the provision of rural road connectivity. ***It is also vital for improvement of social infrastructure such as safe drinking water,***

**primary health and primary education facilities, which are identified with human development.** No doubt other forms of infrastructure are also important, but the impact of rural roads in widening the opportunities and alternatives available to our people has a dominant effect. Our past record in the creation of rural connectivity, with a few honourable exceptions, has not been very good. Although this is an area which is in the domain of state governments, the Centre has taken the initiative to provide dedicated funding for a significantly accelerated rural roads programme. We have also reoriented our poverty alleviation programmes in a manner that they contribute more efficiently to the creation of rural assets, both private and community. The pure employment generation schemes, however, are being focused on those areas which have significant underemployment in order to ensure that the problem of providing adequate employment opportunities are not lost sight of.

***It needs to be recognised that for the sustainable development of agriculture we have to adopt a Regionally Differentiated Strategy based on Agro-climatic conditions and land and water resources where crops most suited to the area and resource endowment are encouraged. Besides, farmers have to be encouraged to cultivate high value crops and also to go in for value addition to their farm produce to generate additional incomes. The diversification of agriculture is also necessary in order to meet the increasing demand for a wider range of food products as a consequence of growth in incomes. All these, however, would require the development of post harvest technologies and marketing infrastructure and reconsideration of various rules and regulations that restrict agricultural trade which frequently act against the interests of the farmers and distort their incentive structure.***

The third area that needs attention is the development and dissemination of agricultural technologies. Over the years we have developed an extensive system of agricultural research centres and extension services. Although these have had a significant impact on our agricultural growth, much more needs to be done. Strengthening of our agricultural research and development system and a significant improvement in the sophistication of the technology dissemination methodologies are essential for achieving rapid and sustained growth in agricultural productivity.

***Finally, there is a need to encourage rural non-farm activities along with agriculture. This is particularly important in a small farmer-based agricultural system as we have in India as it has tremendous potential for increasing rural incomes. Traditional skills, technologies and products abound in our country, but we need to make concerted efforts to create market opportunities for them and to provide the necessary financial resources for their development. Micro-financing is one method of providing the latter, which has been used successfully in a number of other developing countries. We too are making determined efforts to develop and encourage institutions which are capable of taking up this critical activity. However, the attitudes and skills required for micro-finance are quite different from what exists in the normal banking sector. Entirely new and innovative approaches will have to be evolved to address this issue.***

I have a vision of India in which we are not only a leading industrial power, but where a large proportion of our people living in villages do not feel the need to migrate to cities. As Gandhiji said, India lives in her villages, which are the crucible of our social structure, culture and indeed our national values and ethos. In the industrialised countries of the West, people are beginning to move back to the villages from the cities in order to rediscover the values and the lifestyles that they had lost. This is perhaps one area where we can leap-frog. We must create conditions in the rural areas of our country whereby this vision becomes a reality in the not so very distant future. In order to do so we have to realise that rural activities, whether it is agriculture or manufacturing or commerce, are just as sophisticated and demanding as any urban industrial or commercial activity. Everybody recognises that information and management are two critical components of industrial growth. I submit to you that these are just as important, if not more so, for the gamut of rural activities.

Today there is talk about the creation of a "knowledge economy", but the application of knowledge is not restricted to industry or specific components of the services sector. It touches every aspect of human existence and every form of economic activity. Similarly, the creation of knowledge is not the sole domain of laboratories and institutions of higher learning. It is to be found all around us if we care to look and if we have the humility. Should we not draw a lesson from the fact that foreigners have displayed a greater appreciation of our indigenous and traditional knowledge and wisdom than we ourselves.



We must tap this vast reservoir, and codify such knowledge in a manner that makes it available for the benefit of all mankind.

The information revolution has made possible much that was difficult earlier, and we have recorded some success in this arena. The use of information technology is spreading rapidly in the country, but its penetration in rural areas is still at a nascent stage. Objective appraisal of the possibilities indicates that information technology can yield vast returns when applied to our rural areas in a creative and systematic manner. This applies not merely to issues of dissemination of technological and market information, but also to ensuring better and more responsive governance. We shall make all efforts to ensure that such development does take place. Nevertheless, for the optimal use of such technologies, the people themselves will have to be empowered to tap into the IT revolution. This will not only require a rapid spread of education, but of education which is relevant to the requirements of the rural populace and also enables them to take advantage of the technological possibilities unleashed by information technology. Non-government organisations too will have a central role to play in this, and all encouragement needs to be given to them to play their role effectively.

At the end of the day, however, all initiatives in developing and modernising our rural areas will depend upon the quality of management that exists. To my mind, organisation of rural economic activities requires qualities of management which are probably far more sophisticated and complex than those required by the industrial economy. Standard forms of industrial organisation cannot be readily transmuted for application to rural areas. New and more appropriate forms of organisation will have to be devised. Cooperatives and self-help groups have played a significant role in our rural areas, and they need to be unshackled from political and bureaucratic interference to enable them to grow faster and prove their worth. The Panchayati Raj Institutions also represent an exciting area of experiment in rural organisations. We have great hopes that these would become powerful and eloquent champions of the aspirations of our people. These alternative forms of organisation, however, need help in managing their affairs in a professional manner. Such skills are in short supply.

Where do statistics and its related fields fit into this vision of the future? As far as I can make out – everywhere and in greater measure

than before. For too long has the Indian statistical system and practitioners seen themselves as handmaidens of the governmental system, whether in policy planning or in research. Those days are gone. Any activity which requires going from the general to the particular or *vice-versa* has need of statistics and statisticians. A liberalised and globalising industrial economy needs vast quantities of information and appropriate techniques of analysis. Reliance on governmental sources will no longer suffice. In services too, financial analysis and actuarial services are set to expand rapidly. Agriculture – our central focus for the future – is vast in its ambit. Genetics and bio-sciences are just as essential to agriculture as to health-care and pharmaceuticals. Even the government's requirements of statistical information are expanding. At one level, greater decentralisation will require statistical expertise at every tier of government. At another level, globalisation of the economy will require us to institute systems to track the international economy and to provide early warning signals. One example is the growing incidence of "dumping", which requires an information system capable of identifying aberrations and outliers on a real-time basis. Last but not the least, no effort at improving governance can succeed without a proper system of monitoring through the use of statistical techniques.

I would like to share my concern about the state of statistics and generation of statistics in the country today. While it is true that we have a long tradition of a world class statistical system at the central level, we are still grappling with antiquated methods of generating figures at the district and block levels. Friends, this century belongs to the knowledge workers and knowledge managers and the basis for conversion of knowledge into wealth would be on the way we interpret reliable statistical data into meaningful information. I was in the Forest Research Institute in Dehradun recently where I was told that the forest officials had to substantially change their data of forest cover once they were confronted with data generated from satellite imageries. This only illustrates the need for blending technology for generation and dissemination of statistics at the grassroots level.

The whole edifice of national statistics is based on data gathered at the field level and, therefore, we need to have a reliable data base in order to draw meaningful conclusions. There is considerable scope for improvement in the present system and I would like Statisticians to take up this challenge, and see that the statistical systems can be strengthened in the country.

It gives me great pleasure to see that so many bright young men and women have equipped themselves to extend professional statistical skills to areas and activities which have great need for them. Our vision and hope for the future rest critically upon the skills and capabilities of the younger generation, and I am certain that we will not be disappointed. I wish you all the best in the progress of your careers.

Thank you.