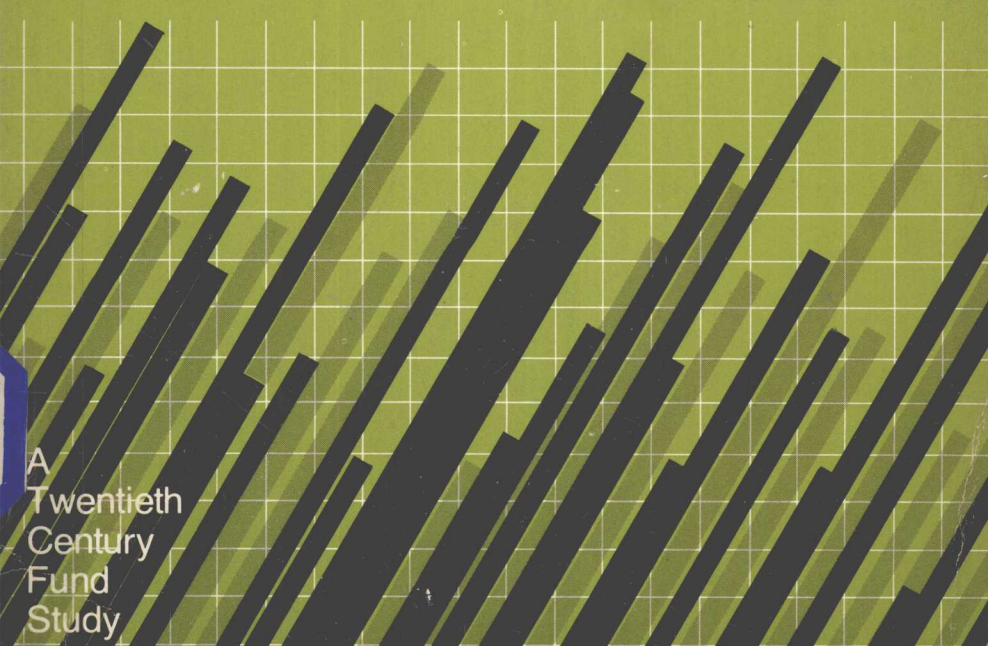


The New Economics of Growth

A Strategy for India and the
Developing World

John W. Mellor

An abstract graphic at the bottom of the cover consists of numerous thick, black diagonal bars of varying lengths and positions, creating a sense of movement and growth. These bars are overlaid on a light-colored grid pattern.

A
Twentieth
Century
Fund
Study

THE NEW ECONOMICS OF GROWTH

A Strategy for India and
the Developing World

JOHN W. MELLOR

A Twentieth Century Fund Study

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The Twentieth Century Fund is a research foundation engaged in policy oriented studies of economic, political, and social issues and institutions. It was founded in 1919 by Edward A. Filene, who made a series of gifts that now constitute the Fund's assets.

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Foreword

In the current atmosphere of increasing anxiety about the world's capacity to produce sufficient food to support future population growth, it may be difficult to recall the euphoria generated in the last decade by the "green revolution" in agricultural technology. But even at the peak of that euphoria, some observers of the developing countries were skeptical that technological achievements in agriculture could by themselves engender self-sustaining economic growth or that the governments of the developing countries would prove capable of taking advantage of these achievements. The Twentieth Century Fund, which had sponsored Gunnar Myrdal's *Asian Drama* and other works on related subjects, had a continuing awareness of the basic problems confronting the development efforts of India and other struggling nations. Six years ago, therefore, the Fund's trustees invited John W. Mellor of Cornell University, a leading authority on agricultural economics who was recently named to the post of chief economist for the Agency for International Development, to examine the green revolution and its prospects for contributing to economic development.

Mr. Mellor initially proposed to focus on development in India and the extent to which the benefits of the new agricultural technology might contribute to growth in other sectors of the economy. But his analysis of empirical data on Indian economic development eventually evolved into a new integrated growth strategy based on the increased employment made possible by an expanded food supply. In this book, Mr. Mellor demonstrates how an agriculturally-based economic strategy can lead to growth in industry and trade and, more important, give the poor an opportunity to become active participants in and beneficiaries of economic growth. Although his research dealt primarily with the Indian experience, Mr. Mellor also considers the applications of his employment-oriented strat-

egy—with appropriate adjustments for local conditions—to other low-income countries.

Like Gunnar Myrdal before him, John Mellor is sensitive to the interaction of political, social, institutional, and economic forces. The strategy he develops is not automatic. It requires changes in government policy that will be opposed by those who supported—and received the main dividends from—the capital-intensive growth strategies favored in the past. The political significance of decisions about development strategy has been recently re-emphasized in India, where Indira Gandhi won her sweeping electoral victory in 1972 and made her latest turn toward authoritarianism with policies promising a new approach to economic growth that would give a bigger share to the millions of poor. Mr. Mellor, who himself argues for development based on measures to increase food supplies, points up the need to undertake broad changes in other sectors of the economy as well as in institutional arrangements if growth is to be more sustained and broader based than in the past.

There is good reason to stress accelerated development of the rural sector. As Mr. Mellor points out, its present relative neglect has not only impeded overall growth but also led to great internal strains and conflict in developing countries. He does not suggest a simplistic concentration on agriculture. Rather, he calls for an integrated strategy that involves fundamental changes in all of the forces that determine development. As such, his work represents a fresh and significant departure in development theory and practice.

The Fund is grateful to Mr. Mellor for the time and effort he put into his study, which is a worthy addition to previous Fund projects on development in both its careful scholarship and its independent thinking.

M. J. ROSSANT, Director
The Twentieth Century Fund

February, 1976

Preface

Too many books on economic development have tended to regard agriculture as an impenetrable mystery, unyielding to the tools of economic analysis and incapable of being integrated with other sectors of the economy. Agriculture tends to be relegated all too often to a single, isolated section of the book, late in the presentation. It is because of this inability to recognize agriculture's positive role that the bulk of the literature on the "green revolution" has either eulogized agriculture—but solely for its contribution to increased food supplies—or maligned it on the basis of the "second generation" problems of distribution it creates.

This book gives agriculture a leading role. The book presents an employment-oriented strategy for economic growth—a strategy that uses technological change in an initially dominant agriculture as a major stimulus to a broadly participatory pattern of rural and urban development.

The strategic choices are real and involve major differences in the processes of planning and the allocation of resources. The shift in development strategy can be implemented only by decisions involving major political and institutional changes that affect the distribution of power and therefore require attention at the highest levels of government.

The strategy set forth here might have been inappropriate to many low-income nations in the 1950s and may still be inappropriate to some for economic reasons—including inadequate knowledge of the specific requisites for agricultural growth and insufficient breadth of industrial structure—and for political reasons—particularly including the need for centralization of authority in pursuit of national unity and international power. The strategy may also be unacceptable now because it would threaten the newly powerful vested interests that have developed from the old strategy and have, perhaps, been reinforced by past historical circumstances. But it suggests an approach to alleviating poverty that may be

less naive than current nostrums and more effective than decades of economic stagnation.

The intent is not to analyze the politics of the choice of strategy but rather to elucidate the basic economic relationships. The approach to poverty is particularly relevant to a new theory of growth because, in contrast to many current attitudes, it treats the solution of the problem not as an issue of public welfare expenditure and redistribution of income but as a function of the structure of growth.

In many ways, India—with its 600 million people and 3.3 million square kilometers of area—is an ideal laboratory for the analysis of an employment-oriented growth strategy emphasizing agriculture. As the cradle and then stronghold of the capital intensive approach to economic growth since the mid-1950s, India provides an abundance of data for analysis and a wealth of debate over causes and results. The experience of India precludes easy generalizations. It supplies not so much the prescription for other countries as the perspective for posing the right questions—and then evolving toward effective solutions.

Despite its popularity in the development literature, much of the old, capital intensive strategy of growth practiced in India was never applicable to the many small countries of Asia and Africa. The rural employment-led strategy set forth in this book does not have large economies of scale in its individual production systems and hence has widespread applicability. In the extraordinary heterogeneity of India's nonurban sector—from the extraordinarily dynamic Punjab to the high-yield areas of coastal Andhra to the low-productivity, high-potential areas of Bengal, to some of the very poor and generally resource-deficient areas of Madhya Pradesh, to Bihar, with its disheartening tenure situation—there are extensive opportunities to understand the complex bases for success and failure of a parade of programs. In the past, many countries have equated modernity with capital intensive, large-scale industry and mechanized, commercial agriculture—an approach at best narrowly applicable. As it becomes recognized that genuine modernity requires a viable, dynamic, broad-based agriculture, the breadth of India's rural experience becomes increasingly relevant.

Similarly, if this book contributes to an understanding of the efforts of developing nations to improve slowly from what is now by no means a desperate state, through evolutionary processes, perhaps the problems and the approaches to their solution will be seen as not very different from

those of energy, poverty, and world position, which are approached with a similar slowness and hesitation in the rich countries. And from that perception may come the mutual respect necessary for cooperative solution of the great problems of the world.

This book gives little specific attention to such much debated issues as "black" money, corruption, Plan "holidays," and subverting of the Fifth Plan, which are generally considered of great importance by specialists on the Indian economy. These problems, however, have been more the result of past strategy and its weaknesses than the cause of failure. Thus, the emphasis of this presentation is intentionally positive: to formulate an alternative approach to those past strategies and to define that approach in some detail.

Perhaps nothing indicates the scope, the method, and the bases for the arguments in this book better than a statement of my indebtedness to colleagues. The work on the manuscript has taken over four years. The effort simply could not have reached fruition without the participation of a large number of people. The basic conceptualization is the product of collaboration with Uma Lele which resulted in two major papers: one provided a mathematical test of the consistency of a number of key assumptions; the other placed those views in a policy framework.¹ The important input analysis of agricultural production is, of course, based directly on Uma Lele's earlier published work. The chapter on foreign trade is largely based on her analysis of low-income-country imports and exports, and the conceptualization of rural development processes draws upon her most recent book, *The Design of Rural Development*.² Finally, no one gave a more critical reading to the early drafts or was more demanding of improvement.

The strategy espoused here depends absolutely on the potential for accelerated growth in foodgrains production. Guntvart Desai made the judgments and time-consuming calculations that provide those estimates. The whole agricultural analysis also owes much to frequent and long discussions with Desai about those processes. A second crucial argument of the

¹ See Uma J. Lele and John W. Mellor, "Technological Change and Distributive Bias in a Dual Economy," Department of Agricultural Economics, revised Occasional Paper No. 43, Cornell University-USAID Employment and Income Distribution Research Project (October 1972); and Uma J. Lele and John W. Mellor, "Jobs, Poverty and the Green Revolution," *International Affairs*, 48:1 (January 1972).

² Uma Lele, *The Design of Rural Development: Lessons from Africa* (Baltimore: The Johns Hopkins University Press, 1975).

book is put forth with respect to the scope for changing capital intensity in the industrial sector through a change in industrial structure. Uttam Dabholkar provided a laborious and intelligent analysis of the data on capital intensity. Mohinder Mudahar played a key role in developing the simulation model that is so important as a test of the argument of Chapter VII specifically and the strategy generally.

Arthur Goldsmith and Debra Biamonte performed the bulk of the development and presentation of data and references which are so critical to the final backing of the arguments. Alice Wells performed the task of administering the details of a large research and graduate program, including meeting deadlines for budgets, reports, and publications which were essential to effective completion of this effort.

A search of the literature on growth and planning procedures was made by Gillian Hart in support of Chapters I and XI and of the discussion of labor-supply relationships that appears in Chapter IV. Chandrashekhar Ranade made a substantial contribution to expansion of the original model and to the precision of the discussion of growth models. Bupendra Desai, Michael Schluter, and Graeme Donovan completed micro-oriented research on various matters treated in the agriculture chapters and provided a detailed perspective on farmers' expenditure patterns, risk and uncertainty influences on small farms, and the effects on employment of changes in technology and prices. Shakuntala Desai undertook a detailed price analysis, which is reflected in Chapter IV. The analysis of small-scale industries was dependent on the microresearch of Jan van der Veen and his critical reading of the industrialization chapters. The chapter on health and education owes much to Richard Shortlidge's detailed analysis of village education, to Shubh Kumar's search of the literature and her own work on health and family-planning programs, and to James Levinson's microresearch and careful review of early drafts. I have drawn heavily on data developed by Ram Yadav, which supplement the information from the basic working paper by Uma Lele on which the foreign trade chapter is based. Raquibuz Zaman contributed to the trade and aid chapters, as did Gorantla Doraswamy. Although he was not at Cornell during the period of work on this book, I owe a special debt to T. H. Lee, whose study of intersectoral resource transfers was seminal to much of this analysis and who introduced me to the economy of Taiwan, where several elements of what I espouse have undergone the test of time.

Much of the substantiation in this book is drawn from detailed micro-

studies of farmers and merchants conducted in my continuing program prior to the initiation of this study—including the work of U. S. Bawa, Ashok Dar, Osman Farruk, Uma Lele, T. V. Moorti, V. P. Shukla, Sheldon Simon, and Thomas Weaver. The care and detail of their earlier work gave the basis and the confidence for tackling this larger task. In the early months of the research, data were pulled together by Roger Selley and Allyn Strickland, while Roger Selley made a preliminary effort to formulate a simulation model for viewing the key relationships.

Dorothy S. Wigod and Ted Young performed extensive editing. Rebecca Lacey typed with dispatch and accuracy a long series of drafts and redrafts. Joe Baldwin produced the graphs. Again, I am grateful for their contributions.

A word of encouragement and a goad at a crucial time are always important to a task of this kind; Sir John Crawford, Wolf Ladejinsky, and John P. Lewis provided those.

Finally, a word about the patience of the Twentieth Century Fund and Carol Barker. A one-and-a-half-year project, ostensibly dealing largely with the green revolution, was expanded into over four years' effort concerned with the crucial problems of employment-oriented growth. I am grateful for the encouragement and forbearance that were the response to this delay.

JOHN W. MELLOR

Ithaca, New York

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Introduction

When Jawaharlal Nehru died on May 27, 1964, a few lines by Robert Frost were found at his bedside:

The woods are lovely, dark, and deep,
But I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.

This poem carries a sense of direction from a simpler era. As the times have changed, other lines from Frost have become appropriate. Perhaps now:

Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.

and

Yet knowing how way leads on to way,
I doubted if I should ever come back.¹

This book is largely about the economic factors that determine the choice of a development strategy. The focus is on increased employment and greater participation of the poor in economic growth rather than on the redistribution of existing output. In India specifically, but more generally in the less developed world, past growth has done little for the poor. The emphasis on employment reflects an optimism that growth can be restructured to provide more jobs for more people, although powerful in-

¹ From "Stopping by Woods on a Snowy Evening" and "The Road Not Taken," *The Poetry of Robert Frost*, edited by Edward Connery Lathem; copyright 1916, 1923, © 1969 by Holt, Rinehart and Winston; copyright 1944, 1951 by Robert Frost; reprinted by permission of Holt, Rinehart and Winston, Publishers, Jonathan Cape Ltd, and the Estate of Robert Frost.