

OCOUNEA

social and economic views on the quality of life

clarke & list

8800000

蹈開

## ENVIRONMENTAL SPECTRUM

Social and Economic Views on the Quality of Life

Ronald O. Clarke Peter C. List Oregon State University





D. VAN NOSTRAND COMPANY

New York Cincinnati Toronto London Melbourne

D. Van Nostrand Company Regional Offices: New York Cincinnati Millbrae

D. Van Nostrand Company International Offices: London Toronto Melbourne

Copyright © 1974 by Litton Educational Publishing, Inc. Library of Congress Catalog Card Number 74-4605 ISBN: 0-442-21611-4

All rights reserved. No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without written permission of the publisher. Manufactured in the United States of America.

Published by D. Van Nostrand. Company 450 West 33rd Street, New York, N.Y. 10001

Published simultaneously in Canada by Van Nostrand Reinhold Ltd.

10987654321

## **Preface**

The essays in this volume are edited revisions of papers which were initially presented at a public symposium sponsored by the College of Liberal Arts of Oregon State University on May 10 and 11, 1973. The symposium was one phase of a more comprehensive educational project designed to stimulate discussion concerning the relation of economic growth to the quality of life between academic and lay citizens in several Oregon communities. The project was cosponsored by the Oregon Committee for the Humanities, an ad hoc citizens group operating under a grant from the National Endowment for the Humanities in Washington, D.C.

In selecting contributors to the symposium, and hence to this volume, the editors were prompted by the conviction that participation in discussions of the relation of economic growth to the quality of life has been limited too frequently to economists and environmental scientists. As important as these perspectives are to a serious study of this theme, its ramifications are, in our judgment, far too extensive to be left solely to these fields of inquiry. Consequently, we have sought to broaden the base of the discussion by inviting a sociologist and three academic humanists to contribute to the symposium.

In organizing the symposium and preparing this publication, the editors prevailed on the services and support of numerous individuals. We particularly wish to thank Charles Ackley, of the Oregon Committee for the Humanities; Emery N. Castle, David and Tina Ervin, Robert J. Frank, Gordon W. Gilkey, Jeri Greaves, Frederick P. Harris, Shirley Jansen, Thomas C. McClintock, Gary W. Sorenson, and Roy A. Young, all of Oregon State University. We also wish to thank the contributors to this volume, who, despite the debilitating handicap of two magnificent Oregon spring days,

## The Authors

- JAY MARTIN ANDERSON is associate professor of chemistry at Bryn Mawr College. While on leave in 1971–72, he served as visiting associate professor at the M.I.T. Alfred P. Sloan School of Management and participated in the System Dynamics Research Group, which produced the Club of Rome study *The Limits to Growth*.
- KURT BAIER is professor of philosophy at the University of Pittsburgh. He is a member of the Executive and Program Committees of the American Association of Philosophy and a member of the Board of Consulting Editors of *The American Philosophical Quarterly* and *Metaphilosophy*. He is author of *The Moral Point of View* and editor (with Nicholas Rescher) of *Values and the Future*.
- HAROLD J. BARNETT is professor and chairman of the Department of Economics at Washington University, St. Louis. He has conducted energy and minerals research for the U.S. Department of the Interior and has appraised resources and economic growth for Resources for the Future and the RAND Corporation. He is author of *Energy Uses and Supplies* and (with Chandler Morse) *Scarcity and Growth*.
- HUGO ADAM BEDAU has taught at Dartmouth, Princeton, and Reed and currently is Austin B. Fletcher professor and chairman of the Department of Philosophy at Tufts University. He is editor of *The Death Penalty in America*, *Civil Disobedience*, and *Justice and Equality*, and author of several articles on distributive and compensatory justice. He has also been an active participant in the Society for Philosophy and Public Affairs since its inception in 1968.

#### viii

environmental studies and co-chairman of the Environmental Studies Program at the University of California, Santa Barbara. He is author of Wilderness and the American Mind and editor of The American Environment and Environment and Americans: Problems and Priorities.

## Introduction

"New occasions teach new duties, Time makes ancient good uncouth," wrote James Russell Lowell. Whether and how this aphorism may currently apply to the "ancient good," economic growth, is one of the principal subjects of the following collection of essays. Economic growth has been widely heralded as a major key to the enhancement of the quality of life throughout recent history. Some conservationists and nature lovers have demurred, but an overwhelming majority of citizens have axiomatically regarded economic growth as sacrosanct. The last two decades, however, have witnessed a significant shift of attitudes toward growth. Spurred by the sudden and dramatic unveiling of hitherto "hidden" costs of growth in the form of polluted air and water, diminishing resources, urban blight and congestion, and an aesthetically deteriorating landscape, an increasing number of citizens from many sectors of society have begun to question the value of economic growth and to wonder whether it is any longer consistent with our social well being. Thus a substantial debate has developed concerning the effects which future growth is likely to have on our lives

One will often find this debate structured in rather narrow terms. While there are ample appeals to the "sacred value" of growth and progress, and passionate defenses of vanishing species and unspoiled wildernesses, it is more difficult to find cogent discussions of such questions as the following: What precisely is meant by "economic growth"? Is our recent plague of environmental problems a sign that such growth has reached a point of negative returns? Is additional growth now inherently inimical to a healthy natural environment and hence to the quality of life? Or, can further growth be controlled and directed in such manner as to produce even greater material abundance and, at the same time,

enable us to restore and maintain a healthful, safe, and aesthetically satisfying natural habitat? What, if any, amount of economic growth is necessary if we are to attain our traditional social goals?

All parties to the debate about growth use the term "quality of life." Proponents and opponents of growth alike use it to justify quite different, even conflicting, social policies. "Quality of life" has become a "code term," to use Bennett Berger's expression, employed in a narrow way to refer to certain obvious features of our lives. But, aside from the simple platitudes with which we are all too familiar, what is really meant by this term? Does it have sufficient rational and empirical meaning to be useful in public inquiry concerning the effects of growth? Moreover, how is the quality of life related to economic affluence? to environmental quality? to alternative life styles? and to considerations of economic and social justice? These are some of the vital questions which the reader will find discussed by the distinguished authors of the essays in this anthology.

In the first essay Neil Jacoby explores "The Social Benefits of Economic Growth." While not endorsing growth at any cost, he believes that a form of "redirected growth" is essential for our social well being. Citing documentation to show that the social benefits of growth have outweighed social costs in the past, Jacoby argues that the benefit/cost ratio can be even more favorable in the future if we redirect growth in ways which minimize adverse effects upon the environment. Continuing growth along the lines he specifies is essential, Jacoby insists, if high-priority social goals such as the elimination of poverty, rebuilding our central cities, providing better housing, and cleaning up the physical environment are to be achieved.

In the second essay, "Growth in a Finite World," chemist Jay Martin Anderson contends that assessments of the *desirability* of economic growth are contingent upon the more fundamental question of whether continuing growth is *possible* in a finite world. Summoning data from the M.I.T. system dynamics study in which he participated, Anderson concludes that there are insurmountable limits to physical growth on our finite planet. No panaceas can deter our world system from tragic collapse if growth is allowed to continue indefinitely, he insists, for the "game of growth" itself is

the problem. Anderson maintains that a "new game" is now required, one involving a shift of values and lifestyles from those dictated by growth to those predicated on constant stocks of men and materials, sustained by a low rate of throughput. The necessary shift of values, he concludes, must be away from materials and consumption toward services and conservation, a redistribution of wealth, and a long-term value orientation.

"Economic Growth and Environmental Quality Are Compatible" is an appropriate title for economist Harold Barnett's contribution. Growth, adequate resource availability, and a healthful environment are all fully compatible, he argues, "if society has the will and wit to solve the related social problems." Barnett addresses the question whether economic growth is subject to the "law of diminishing returns" as the result of increasing resource scarcity and environmental deterioration. His conclusion is that the diminishing returns hypothesis is wrong, because, as recent economic history has shown, resource availability in economic terms improves exponentially at a rate that more than offsets growth in population and per capita consumption. Furthermore, he asserts, pollution abatement policies, although expensive, can be accommodated without significantly slowing rates of economic growth. Indeed, growth in per capita income and technological improvements "provide the social interest and the economic and technical means to seek improvement in the environment."

From examining the essays by Jacoby and Barnett, the reader might hastily assume that all economists agree that economic growth is both socially desirable and, at least in principle, compatible with environmental quality. Economist Herman Daly's essay, "Steady-State Economics Versus Growthmania," quickly dispells any such illusion. Daly is convinced that many of his fellow economists are addicted to "growthmania" ("growth forever and the more the better"), a malady whose conceptual roots lie in the doctrines of "relative scarcity" and "absolute wants," and whose symptoms include a failure to consider adequately the fact that nature imposes an absolute general scarcity in the form of the laws of thermodynamics and the finitude of the earth. According to Daly, conventional solutions to problems generated by growth, such as resource substitutions, technological improvements, the

price system, and the internalization of external costs, may mitigate the burden of scarcity resulting from growth, but they will not eliminate it. The physical and ecological limits to growth, Daly contends, imply the eventual necessity of a steady-state economy.

To this point in the anthology, the impact of growth on the quality of life has been discussed primarily in the context of economic and environmental issues. But the crucial question of what is meant by "the quality of life" remains to be explored. Kurt Baier undertakes this complicated assignment in "Towards a Definition of 'Ouality of Life'." He arrives at a formal definition which interprets "the quality of life in a region" in terms of the degree to which that region's physical and social environment possesses "the capacity to maximize optimal-life proximity," where this refers to how nearly the life in a region approaches optimality for a person making an appraisal of it. Baier is persuaded that the formal definition he proposes should enable us to make appraisals of the quality of life in a region, whether we live in it or not. And though he concedes that we are presently in a state of comparative unsophistication in the art of providing "quality of life indicators," and that there are obstacles which must be overcome before empirical research can proceed, he is optimistic that adequate tests of this concept can be devised.

In "The Quality of Life and Economic Affluence" Kenneth Boulding notes how we attribute measurable dimensions to our appraisals of the "quality" of certain things through the processes of estimation and weighting. Unfortunately, however, these appraisals can go wrong, and sometimes this can have far-reaching and disastrous consequences. Boulding discusses several forms which these failures take and how they may adversely affect our measurement of economic affluence. He indicates, moreover, that even if we concede that we can avoid these errors, we are still confronted with the problem of understanding what economic affluence has to do with "the quality of life," where the latter refers to the total state of our welfare. Affluence is undoubtedly an important ingredient in this, he maintains, but it is not always true that every increase in our personal or social affluence is identical with an increase in our total welfare. What we lack, Boulding concludes, is a good measure of this latter state, and whatever

the Quality of Life." He maintains that the quality of life is not simply a quantifiable, economic matter, since our evaluations of it are affected by our commitment to certain social ideals, including the ideal of social justice. But this leads to some difficulty, because one thing we must do in assessing a society's quality of life is to see how it resolves trade-offs between equally compelling, frequently incommensurable, social ideals. Bedau proposes the "theory of fair inequalities," advocated by John Rawls, as the best theory of social justice for coping with such problems. Application of the theory leads Bedau to the conclusion that the apparent trade-off between environmental goods (such as clean air, purer water, and litter-free highways) and social justice is spurious in theory and only arises in practice from other causes having to do with the way our political system compromises social justice in favor of certain selfish economic interests. Efforts to provide social justice for all members of society, he insists, are compatible with efforts to achieve laudable environmental objectives. What we seek is a just society, one which distributes its goods (and bads) equitably and, in doing so, does not ignore its most disadvantaged citizens.

In the concluding essay, "Environmental Ethics," Roderick Nash argues that environmental conservation must become a matter of morality, and not merely a matter of economics, aesthetics, or law, if attitudes and behaviors necessary for improving the environment and the quality of life are to be created. The root of our environmental problems, he asserts, lies in our failure to accord to all life, and to the environment itself, an ethical status comparable to that which is normally accorded to members of our own species. Any meaningful, long-term corrective to environmental abuse depends, therefore, on an evolutionary ethical advance—specifically, the extension of ethical concern and responsibility to embrace not only the totality of living forms but also nonliving things such as ocean, sky, and soil.

## **Contents**

	Introduction	ix
1		1
	Neil H. Jacoby	
2	Growth in a Finite World	13
	Jay Martin Anderson	
3	Economic Growth and Environmental Quality	
	Are Compatible	22
	Harold J. Barnett	
4	Steady-State Economics Versus Growthmania	37
	Herman E. Daly	
5	Towards a Definition of 'Quality of Life'	58
	Kurt Baier	
6	The Quality of Life and Economic Affluence	82
	Kenneth E. Boulding	
7	Man-Made Environments	96
	René Dubos	
8	Alternate Life Styles and the Quality of Life	111
	Bennett M. Berger	
9	Social Justice and the Quality of Life	125
	Hugo Adam Bedau	
0	Environmental Ethics	142
	Roderick Nash	
	Bibliography	151

# The Social Benefits of Economic Growth

### **NEIL H. JACOBY**

Professor, Graduate School of Management University of California, Los Angeles

I will discuss the social benefits of economic growth; other contributors to this volume will discuss its social costs. The majority of economists are not in opposite corners of an intellectual ring, from which to do battle over the wisdom of economic growth in the United States; rather, being economists, each of us understands that everything, including economic growth or the quality of life, has its costs. We are able to get more of one good only by giving up some of another good. It is not a matter of all or nothing; trade-offs are inescapable. Weighing the benefits that flow from a particular economic action against its concurrent costs is the heart of economic decision making. These hard imperatives of measurement and choice are, no doubt, one reason why economics has been called "the dismal science."

I shall not argue for economic growth at any cost; nor will other colleagues contend that environmental quality should be elevated to a state of pristine purity without regard to its costs. The desirability of economic growth must be weighed against the desirability of other good things that must be given up to attain it.

Indeed, the contemporary "energy crisis" in the United States is the result of our society's failure so far to develop a politically acceptable formula for resolving the conflict between our demands for more energy and our demands for a cleaner environment. The nation lacks oil refining and electrical generating capacity—and these shortages are bound to become more critical during the next few years—because oil and electrical utility companies have not known what environmental standards they must meet or where they will be permitted to locate new plants. Clearly, *some* amount of environmental disruption must be accepted if the supply of energy is to grow. The optimum trade-off between environmental quality and energy need *must* be determined soon, in order to end this impasse.

### THE ANTI-GROWTH MOVEMENT

No values of the American people have changed more rapidly during the past decade than have their attitudes toward economic growth and environmental quality. During the Fifties and most of the Sixties, growth of the GNP was the pre-eminent goal of national policy. Soviet Prime Minister Nikita Khrushchev stung Americans with his confident threat that the Soviet Union would "bury" capitalism. Nations engaged in a competition to expand their annual GNP rates. In 1960 John F. Kennedy was elected President on a platform of "getting America moving ahead." It would have been considered preposterous for anyone seriously to question the net social benefits of economic growth.

Toward the end of the Sixties, with astonishing swiftness, the American people embraced environmental improvement as their primary public goal. Concurrently, they degraded economic growth as a national aim, because they perceived that it conflicted with growth of output. To many observers, economic growth became the villain in the unfolding drama of social development. Growth of production was seen to be the cause of air and water pollution, as factories discharged their wastes. Growth of consumption was revealed as the cause of mountainous problems of waste disposal, auto junkyards, billboard advertising, and other offensive paraphernalia of a high-consumption society. Growth of population

was identified as the source of congestion, noise, traffic jams and loss of amenities in our cities.

The solution that many people now advance for these social and environmental problems is to slow down economic growth, or to stop it altogether. The no-growth movement is attracting a widening circle of adherents. States and cities that formerly advertised their attractions, in the hope of enticing immigration, have dampened their efforts. Some, like the State of Oregon, deliberately seek to deter immigration. The Los Angeles Chamber of Commerce, so long an exponent of salvation through unlimited expansion, now receives less publicity than the Lesser Los Angeles Association; and the City is being rezoned to reduce its maximum potential population from ten to four millions. The concepts of a slow-growth and no-growth society are gaining adherents in the intellectual community. Paul Ehrlich's The Population Bomb, Jay Forrester's World Dynamics, and the Meadows' The Limits to Growth, in particular, have aroused visions of apocalypse if man does not limit his numbers and reduce his demands upon Nature. Less apocalyptical in tone, but equally influential in raising questions about the desirability of economic growth have been K. William Kapp's Social Costs of Business Enterprise and E. J. Mishan's The Costs of Economic Growth. These keynote books have been, of course, accompanied by a spate of articles in the professional and popular journals. In November 1972 Resources for the Future granted funds to the American Academy of Arts and Sciences to study systematically the meaning, desirability, feasibility and consequences of a no-growth society.2

Evidently the pendulum of public opinion about economic growth has now swung to its opposite extreme. But a public policy of no-growth is just as irrational as one of growth-at-any-cost. Zero economic growth is neither technically nor politically feasible, even if population growth ends, as I believe it should. Zero economic growth would require—in addition to a stable population—a static technology and an end to capital formation. But Americans are unlikely to stop saving and investing, in view of the savings rates they have maintained in the face of an enormous rise in incomes. And a static technology is simply inconceivable. As long as we are

thinking animals, we will find new ways to increase the productivity of work.

Neither is zero economic growth politically feasible. The poor would resist the idea adamantly, unless it were accompanied by a massive redistribution of incomes; and such a redistribution would be opposed by the nonpoor, who constitute the bulk of the population. Hence, growth of output and incomes must continue, if only to elevate the remaining 11 percent of our population out of poverty.

Two thrusts of public policy are needed today. First, our society needs a public policy to redirect the growth of the economy in ways that will minimize adverse effects upon the environment. Secondly, our society needs politically acceptable formulae for determining the optimum trade-off between environmental excellence and redirected economic growth. If future economic growth is redirected into nonpolluting and resource-conserving channels, there is much evidence that its disruptive effects upon the environment will be minimal. There is also persuasive evidence that the social benefits of a redirected economic growth will far outweigh any residual costs in environmental deterioration. To put the proposition informally, American society needs economic growth to attain a better quality of life.

### REDIRECTING GROWTH TO ENHANCE WELL-BEING

What is meant by "redirected" economic growth? It means growth of output attained when the full costs of producing and consuming each commodity and service are included in its price. In general, it is growth with less environmental pollution and with more reuse of materials. The key to redirected economic growth is the internalization of external costs—costs now thrust upon the public by the producers or consumers of many goods. The motorist whose vehicle spews poison out of its exhaust pipe; the city that dumps raw sewage into a river or ocean; the corporation whose smoke stacks blacken the sky—all generate external costs borne by the public in the form of impaired health, higher costs of property maintenance, travel to more congenial environments, and other outlays. The primary method of internalizing these costs is for the

government to establish environmental standards that reduce pollution to tolerable levels, and which compel the polluters to pay the costs. For example, we are told that autos that meet the clean air standards of 1976 are likely to cost the public \$300 to \$500 more than the present vehicle. A 10 to 15 percent rise in auto prices, accompanied by sharply higher gasoline prices, will assuredly lead people to drive smaller cars, to drive fewer miles, and to live closer to their work. But these sacrifices will be made willingly because of the cleaner, quieter environment they will buy. By supporting the 1976 auto emission standards set by the Environmental Protection Agency, the American people have, in effect, determined the trade-off between environmental quality and auto travel that they consider optimal. A similar analysis can be made of standards for clean water, noise, solid waste disposal and other environmental variables.<sup>3</sup>

### POST-ECONOMIC GROWTH AND SOCIAL WELL-BEING

An important question is whether the economic growth of the nation in the past has contributed to its social well-being. To answer this question we need an objective measure of social well-being. It has long been recognized that the GNP, a measure of total output of the economy, may be a misleading measure of well-being because it does not reveal how well production is meeting human needs, how it is distributed among people, or what are its real costs.

An effort is now being made in many nations to develop indexes of social well-being. Pioneering work was done by the Russell Sage Foundation in the United States in constructing "social indicators." <sup>4</sup> In Japan, a committee attached to the Economic Planning Agency is making four different approaches to the problem. <sup>5</sup> One is to reclassify gross national expenditures according to their contribution to social goals. Another is to strengthen the GNP as a welfare index. A third is to examine directly changes in stocks of consumer goods, such as schools, hospitals, housing, autos, appliances, et cetera. A fourth is to develop nonmonetary indexes of welfare.

Professors Tobin and Nordhaus of Yale University have made a