

# **ECONOMICS and the Crisis of Ecology**

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**NARINDAR SINGH**

**SECOND EDITION**

# ECONOMICS AND THE CRISIS OF ECOLOGY

**NARINDAR SINGH**

**ZAKIR HUSAIN CENTRE FOR EDUCATIONAL STUDIES  
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## FOREWORD

Development and environment have become increasingly intertwined. There is a growing realization among developing nations of the ecological dimensions of development. A forest on a hill slope is cut down for growing more rice. In a short while there are floods that devastate the land below. A river is dammed, fishes disappear and the basin gets rapidly silted.

The ecological system is a complex one, where land, water, plants, animals and men are linked by a complicated web of interconnections. Attention to only one set of facts or links without considering others in our developmental plans may make many of these efforts fruitless. While these links between plants and animals, man and the living world and between man and his physical environment are complex, they cannot be ignored in future strategies of development.

Lovelock, an eminent biologist in Britain, has proposed the idea that the entire world and all the living systems within it can be looked at as one living organism. Perhaps there is some validity in this curious proposition.

Dr Narindar Singh has focused, and I believe this is one of the first exercises of its kind in India, on the ecological dimensions of development in his study of developmental processes. Economics, to him, is a much wider concept than just the currently presumed relationship of raw materials and production, costs and benefits, investment and profits, and should provide a deeper understanding of how much we can bend the links of our ecological chains without breaking them. It is this attempt to bring to the study of developmental economics a wider horizon which makes Dr Narindar Singh's study so cogent and important.

26 July 1976

B. D. NAG CHAUDHURI

## PREFACE

In an eroded ecology today, we face a global crisis of unprecedented gravity. In comparison, the frightful muddle which John Maynard Keynes, for example, once spoke of may well turn out to have been no more than a minor inconvenience. It seems fairly obvious also that the world economy as at present organized can do very little to rectify the situation or even to prevent it from deteriorating further. But unable to perceive the true dimensions of the crisis, academic economists see in it yet another opportunity to develop new 'tools of analysis' which are informed, above all, by a total neglect of the essentials involved. For, to them the manifestations of environmental pollution and overall ecological decay appear to be no more than avoidable or at least controllable negative externalities. But, as I hope to be able to show, the problem is a lot more serious than that, so one cannot even comprehend it properly in terms of the kind of explanatory devices that conventional economics seems able to provide. This is intended to suggest that economics, simply because it can throw but little light on the most pressing empirical problem of today, is entirely irrelevant. In fact, it seems to be almost literally true that the intensifying environmental pollution has thrown orthodoxy into a state of virtual asphyxia.

I do not wish to imply that the relevance of economics has never been challenged before. The historicist 'uprising', and the Veblenian protest that succeeded it, were, for example, directed at little else; and quite a long time has elapsed since J. H. Clapham made 'empty boxes' part at least of the vocabulary of dissent. But orthodoxy was only lightly scorched in the process. This was due primarily to the fact that when, say, the celebrated *Methodenstreit* was in progress, the expansionary phase of the economic system itself, viewed secularly and globally, was not over, with the result that anyone trying to challenge the orthodoxy of the day could be safely brushed aside as an eccentric if not a crackpot. It was not difficult therefore for the neo-classicists to win the *Streit* so decisively. Even later, 'empty boxes' was to gain currency largely as a *phrase*, while empty-boxism continued to flourish as a *profession*.

But the times have changed. It is becoming increasingly evident

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now that if economics is irrelevant as a system of thought, it is primarily because the prevailing order itself has become dysfunctional as a mode of socio-economic organization. But this is the context in which at least the academic critics of orthodoxy, as far as I am aware, have generally avoided posing the problem of its irrelevance. In support, one has only to refer to the well-known but formalistic and more or less superficial exercises in dissent recently undertaken by Professors Nicholas Kaldor, E. H. Phelps Brown and Wassily Leontief. But, to my mind, to be at all substantive and convincing, a critique of economics must of necessity be rooted in an examination of the existing order. My contention is that since it is this which has become, in Andreas Papandreou's phrase, irrational *de profundis*, economic theory in seeking merely to rationalize it must perforce be irrelevant. Of course, it is not economics alone but much if not most of social science being done on the Right and Left which the gathering crisis of ecology renders totally obsolete. However, this point, though extremely important, must await elaboration on a later occasion. It seems worth affirming nevertheless that the Imperative of Ecology impels one to avoid all truck with conservative modes of thought.

April 1976

N. S.

## ACKNOWLEDGEMENTS

I am obliged to Professors Joan Robinson, Paul M. Sweezy, Tapas Majumdar, István Mészáros, Amartya Sen and Amit Bhaduri who found time to make suggestions for the improvement of this work which grew out of my doctoral dissertation accepted by Punjabi University. Professor Amrik Singh, though not an economist, or rather because he is not one, provided more penetrating insights than I can possibly recall. Another former teacher, Professor Harbans Singh, helped me chisel the composition. I must also mention the intellectual debt I owe to Professor Barry Commoner whose recent work seems indispensable for a comprehension of the crisis mankind is facing today. Correspondence with Professor Nicholas Georgescu-Roegen, and the UNESCO ecologist, Dr Kai Curry-Lindahl, proved useful, though I am not sure that they will accept much of what I have to say. The much needed moral support for the completion of this book came from Beant, my wife, and the financial support for its publication from the Indian Council of Social Science Research (who are in no way responsible for the views expressed). I must thank them both, and also Oxford University Press for editorial help.

The University Grants Commission have financed the production of this paperback edition under their programme for the publication of outstanding works of scholarship and theses. I am greatly honoured.

N. S.

My excuse is that it is only through the knife of the anatomist that we have the science of anatomy, and that the knife of the anatomist is also an instrument which explores only by doing violence.

Norbert Wiener\*

One type of criticism we would like to answer in advance. We shall probably be accused of exaggerating. It is a charge to which we readily plead guilty. In a very real sense the function of both science and art is to exaggerate, provided that what is exaggerated is truth and not falsehood.

Paul A. Baran  
Paul M. Sweezy\*\*

\*Norbert Wiener, *God and Golem Inc.*, M.I.T. Press, Cambridge, 1966, p. 9.

\*\*Paul A. Baran and Paul M. Sweezy, *Monopoly Capital*, Monthly Review Press, New York, 1968, p. viii.



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## Introduction

# THE NEW CRISIS AND THE OLD WISDOM

The economists of the *laissez-faire* school purported to abolish the moral problem by showing that the pursuit of self-interest by each individual rebounds to the benefit of all. The task of the generation now in rebellion is to reassert the authority of morality over technology; the business of social scientists is to help them to see both how necessary and how difficult that task is going to be.

Joan Robinson\*

SUFFICIENT evidence is already available to the effect that the world, literally the whole world, is in the throes of a major and multi-dimensional ecological crisis. But since our economy is essentially a constituent sub-system of the terrestrial ecosystem, what is threatened above all is our ability to continue to produce the means of our livelihood. And since this involves nothing less than our very existence as a species, economics can do little better perhaps than to make ecology its central concern. But it is obvious also that, as developed by the neo-classicists at least, it can do nothing of the kind. For, concerned primarily with what determines the profitability of 'output', it cannot possibly play the spotlight on its toxicity as well. It may indeed go into very elaborate details pertaining to the behaviour of the average and marginal costs of producing commodity X, in the short run or the long, and yet not care even to enquire what the X itself is. But such empyrean indifference towards the nature of what passes for production could hardly be justified any more. For the intensifying crisis of human ecology is due largely, if not entirely, to a reckless proliferation of many of the X's that have been developed during the last few decades. Some of the marvels of

\* Joan Robinson, *Freedom and Necessity*, Allen & Unwin, London, 1971, p. 124.

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modern technology like the high-compression motor-car, sophisticated weapons of mass destruction and the ever-multiplying products of petrochemistry may be mentioned in this context. Together, they deplete without relent such resources as are in any case exhaustible, and destroy the self-renewing capacity of the rest. This is reason enough why the world may soon be facing an economic collapse of a rather novel configuration in that it would be completely unamenable to any of the anti-depression devices that the received wisdom might be able to contrive.

But while a biologist, Professor Barry Commoner, has almost single-handedly sought to draw public attention to the gravity of the threat to the human economy that modern technology poses, economists themselves have remained largely indifferent to it. This is all the more surprising because the progress of petrochemistry at least can be shown to have directly exacerbated international inequalities with which in any case they have of late been so deeply concerned. Indeed, without reference to the massive misuse of fossil fuels which has taken place during the post-war period, it would be impossible to explain the fact, emphasized by Paul Sweezy some time ago, that the Third World is becoming a larger part of the world's population and is accounting for a smaller share of its output.<sup>1</sup> And this underscores the fundamental problem of our age: unbridled affluence of a shrinking minority of mankind proceeding *pari passu* with the inexorable immiseration of an enormous and expanding mass of it. To assert that this juxtaposition is inherently and entirely unjust would be to labour the self-evident. I would argue instead that it is completely unsustainable and carries within itself the seeds of an apocalyptic disaster which *homo sapiens* perhaps would have sufficient wisdom to try to avoid.

But to raise such a question and to pursue it to its logical limits is, in effect, to try to bring under examination nothing less than the credentials of the *status quo* itself, whose legitimacy academic consensus has traditionally held to be complete. It is only over peripheral issues, in fact, that seemingly bitter controversies often crop up among professional economists; and such prevarication as is implied in the trite remark that the number of opinions they succeed in proffering often exceeds their own, does not concern the existing structure of power and privilege which they just refuse to question.

<sup>1</sup> Paul M. Sweezy, *Modern Capitalism and Other Essays*, Monthly Review Press, New York, 1972, p. 16.

On the contrary, ideas intended precisely to preserve it appear thoroughly revolutionary to them; and the Keynesian 'revolution', for one, was never even meant to reject any of the fundamental tenets of capitalism, or the process of its corporatization, but simply to question the ideology of *laissez-faire*.

It seems reasonable to argue also that in ignoring the growth of monopoly *per se*, Keynes chose to focus on a mere symptom of the Great Depression, the deficiency of aggregate demand, rather than a primary cause of it. Symptoms, of course, are not impossible to arrest, at least temporarily, and the deficiency of demand could certainly be terminated without much difficulty. In fact, Hitler, as Mrs Robinson has suggested, 'had already found how to cure unemployment before Keynes had finished explaining why it occurred'.<sup>2</sup> But the expedient of additional public spending, literally on anything, that seemed so naturally to suggest itself to him, could only cause far more serious problems in the long run by depleting resources on its own. The mere fact, then, that the attempted remedies must perforce aggravate the situation clearly shows that what we are confronted with is not a passing dysfunction at all. Rather, as István Mészáros has said, it is a fundamental, dynamic contradiction of the whole structure of capitalist production in its historic phase of disintegration.<sup>3</sup> A total disavowal of interest in the long run, in which though we may all be dead, would therefore not be excusable.

Certainly, an economist who had once mused over 'the economic possibilities for our grandchildren' had no right to think in terms of 'After me the deluge'. But, then, any serious thought for the long run would have impelled Keynes to question the validity of the *status quo*, as also of the associated orthodoxy. Concerned instead with preserving the essentials of both, he chose to attack the ideology of *laissez-faire* alone. Yet, the role he specified for the government, though important, was, in Andreas Papandreou's phrase, clearly auxiliary, not much more important than that, say, assigned to a thermostat intended to maintain a constant temperature.<sup>4</sup> But the real trouble now inheres in the fact that this equipment, with public spending as its controlling knob, is itself going haywire. For

<sup>2</sup> Joan Robinson, *Selected Economic Writings*, Oxford University Press, Bombay, 1974, p. 246.

<sup>3</sup> István Mészáros, *The Necessity of Social Control*, Merlin Press, London, 1971, p. 51.

<sup>4</sup> Andreas G. Papandreou, *Paternalistic Capitalism*, OUP, London, 1972, p. 10.

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whatever may be done to regulate it can only cause the macro-environmental 'temperature' to rise further still. Besides, on account of increasing technological sophistication, the efficacy of public spending, particularly on armaments, for purposes of employment generation is also known to be on the wane. But entirely unconcerned with problems such as these, academic economics has already settled into a mood of relative placidity, and the Keynesian revolution has been duly followed by what Mrs Robinson and John Eatwell have aptly described as the 'restoration'. Evidently, the assimilation of Keynes's ideas into the established orthodoxy has been rather quick and complete for the simple reason that not only did he not question the essential validity of the prevailing order, but sought actually to indemnify it from such a basic infirmity as involuntary unemployment.

In any case, what seems now to be exceedingly more important than the level of employment is the nature of what those employed are made to produce. For it is clear enough that while an undifferentiated mass of public spending would have to keep increasing even to create more employment it would necessarily accentuate the damage to ecology at the same time. The crisis of ecology, then, is due primarily to a fundamental malstructuring of what the genteel would prefer to call man's system of production which cannot even exist without demand stimulation. Indeed, as the two Pauls, Baran and Sweezy, once put it, the question for monopoly capitalism is not *whether* to stimulate demand: 'It must, on pain of death.'<sup>5</sup> But it is becoming ever clearer now that in the very process of doing so, it cannot help destroying the material base of its own existence. For neither a continuing and senseless proliferation of modern arms, even if not intended to be used, nor high consumption can be sustained indefinitely on a planet with severely finite resources.

Our planet, a city born in desolate space and condemned to remain marooned within its confines forever, can ill-afford the luxury of artificial demand-stimulation. But it is remarkable indeed that while on the eve of the last War it was the accelerated production of *arms* which served to boost the more or less ineffectual aggregate demands in the countries of developed capitalism, in relatively recent years it is orgiastic consumption which also has had to be used for this purpose. This does seem to lend some support to the view due, among others, to Gerard Piel of the *Scientific American*, that because

<sup>5</sup> Baran and Sweezy, op. cit., p. 111.

of the increasing sophistication of modern war technology, the production of arms has lost its potency as an economic stimulant.

But high consumption has its own limitations and hazards, and the economic system which is obliged to promote it must be taken to be irrational in the extreme. Indeed, we do not face in the more or less proximate future a threat more besetting than a system which merely to survive has first to *create* the wants that it seeks to satisfy, and then to create yet more of them in ever surging waves of euphoric unconcern. The culture of consumption must stimulate but never satisfy, Ronald Segal has written. But stimulation *sans* satisfaction can only be with respect to wants which are in no way functional; and it must have consequences for the human environment and ecology which are undesirable in the extreme. Besides, the destruction alike of exhaustible and renewable resources brings about a sea-change in the nature of the economic problem itself which in turn would require a complete alteration in the fundamentals of economic philosophy.

From the viewpoint of the economy as a whole, for example, the central problem discussed in the literature so far has revolved round the ability or otherwise of the prevailing system to engender aggregate demand large enough to avoid more or less chronic mass unemployment. But the problem as it appears now to be menacing the world economy is one of dwindling *supplies* of resources. Moreover, while artificial demands could always be created to boost a sagging market economy, supplies by their nature cannot possibly be artificial. That is, they cannot be called into existence out of nowhere merely to fill the vacuum caused by a heedless profligacy in the use of terrestrial resources. The 'second crisis' in recent years, as Mrs Robinson calls it,<sup>6</sup> which the world economy is facing today, is therefore going to be fundamentally different from the first in that it just cannot be resolved within the confines of the international *status quo*. There must indeed be something fundamentally irrational about a system which in order to cater to the dysfunctional wants of the world's few has of necessity to deny to increasing millions a mere chance to live as humans. That it also embodies within itself a growing threat of total ecological disaster is just one more reason—the ultimate reason—why it may be deemed to have lost what C. Wright Mills would have called its 'basic legitimation'.

In the light of the foregoing, it need hardly be pointed out that

<sup>6</sup> Robinson, loc. cit.

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this essay is by no means intended to prescribe any specific *limits* to growth. It is meant to show, instead, that such an exercise, its popularity among large circles of literati notwithstanding, could be misleading in the extreme. This is certainly *not* to question the fact of the terrestrial limits as such, which we could ill-afford to ignore, but to argue that capitalism cannot possibly avoid violating them, given its congenital urge to expand and the extremely toxic nature of its output.

But it is not good positive economics, as academics see it, to play the spotlight on the *nature* of what is being produced. For, kneeling awe-stricken, as Paul Baran wrote once, before the absolute truth of the consumer's 'revealed preference', it disdains to 'make any judgements on the resulting composition of output and hence on all the waste and cultural degradation which so obviously characterize our society'.<sup>7</sup> This is exactly the reason why it is singularly ill-equipped to undertake an in-depth analysis of the crisis of our ecology which is due primarily to the nature of a good deal of the output of modern industry. But I am not aware of any economist, regardless of his political persuasions, who has sought to explain the crisis in terms of the origin and expansion of some specific industry. This is not entirely justifiable in view of the fact that intensification of the erosion of human ecology and the expansion of the intensely counter-ecological petrochemical industry have both taken place during the post-War period. In fact, most of the economic miracles which high capitalism has of late experienced as also its excrescences are due largely to the expansion of this industry which may well be designated as its 'leading sector'.

But unable to perceive the true dimensions of the predicament we are in, academic economists continue to dismiss it as merely an amalgam of the negative externalities of the existing productive apparatus which can be more or less effectively rectified with the help of fiscal measures alone. Besides, the argument runs, ecological viability in the future can be ensured by instituting a steady-state economy characterized by ZEG (zero economic growth) and ZPG (zero population growth) on a world-wide basis. Should any difficulties still persist, we are assured, technological ingenuity could always be expected to remove them, one way or another.

In contrast, the view taken here is that the crisis of ecology is *not*

<sup>7</sup> Paul A. Baran, *The Political Economy of Growth*, Penguin Books, Harmondsworth, 1973, p. 20.



a question of mere negative externalities, but is inherent in the very logic of profit-making; that the steady-state economy and the imperative of capital accumulation mutually exclude each other; that the population explosion, disastrous though it doubtless is, is still a symptom, not a cause, so that what it requires to be de-fused is, to begin with, an improvement in the quality of life of the underprivileged and not family planning *per se*; and, finally, that technology itself is severely constrained by the fundamental laws of nature, and cannot therefore be expected to do just anything that we might choose to demand of it. It seems that all the hullabaloo about zero growth and recycling technologies and so forth serves only to divert one's attention from the truly basic question of acute and intensifying inequalities that characterize contemporary world economy. Already, rich countries constituting no more than twenty per cent of world's population use up more than eighty per cent of its resources;<sup>8</sup> and there is every reason to believe that these proportions would keep moving further apart. In view, however, of the tenacity of *intranational* inequalities and the problems they give rise to, it would be better to keep under focus the division not merely between the rich countries and the poor, but between the rich and the poor of every country. For *anyone* who is able to maintain, say, a motor-car is, René Dumont has written, 'exorbitantly rich, an exploiter'.<sup>9</sup> Anyway, affluence is a self-exciting *process* and must perforce devour terrestrial resources at an ever accelerating pace. But the kind of economic opportunities it creates can hardly percolate to the underlying and proliferating millions. It is therefore intrinsic to the very nature of the prevailing system to engender the development of overdevelopment at the one end, and as A. G. Frank has phrased it, 'the development of underdevelopment', at the other. Together, they constitute anti-development on a world scale.

But such mundane thoughts are not allowed to defile the fount of pure, positive theory out of which continue to gush lemmas and theorems about 'firms' seeking obdurately to equate marginal this with marginal that. It seems rather odd that while our very existence is threatened by an inexorable and unsustainable *destruction* of resources, orthodoxy makes their *allocation* its main concern. The ostensive purpose is to assign the pride of place to economic *efficiency*. But it is evident enough that if the prevailing system had

<sup>8</sup> René Dumont, *Utopia or Else . . .*, Andre Deutsch, London, 1974, p. 39.

<sup>9</sup> *Ibid.*, p. 67.