

THE SOCIAL COSTS OF ECONOMIC DEVELOPMENT

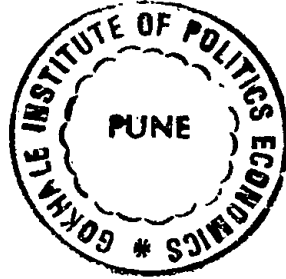
(An Environmentalist Approach to Some Indian Problems)

by

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PREFACE

The purpose of this paper is to dispel the widely prevailing view among economists (especially in our country) that problems of environmental pollution and degradation are matters which concern only engineers and natural scientists, and that they have little to do with economics. This erroneous view has prevailed mainly because the specialists in our discipline have been too engrossed with monetary model-building and abstract theorising to realise that the economic activity in practice is leading to effects and consequences which are not accounted for, and play no active role, in their economic theory. They still do not accept that ^{non-paid} social costs or non-private costs resulting from normal industrial and agricultural development have become so huge that their deletion from the entire market-mechanism-process makes non-sense of the pricing-theory itself. It is more surprising that ^{non-paid} social costs are not accounted for even in our planning process. Our planned outlays, and dams and industrial complexes continue to be located with a blissful disregard to the environmental consequences. Our fresh water sources which are the most scarce factor in agriculture continue to be polluted; our lands, which are also scarce, continue to be cultivated beyond the economic margin, and yet nobody takes a serious stand against the cultivation of sub-marginal land.

This paper has tried to demonstrate that the initial anxiety regarding environmental issues, and social costs of economic development, as expressed by Pigou and other classical writers has been superseded by an overwhelming preoccupation

(ii)

with growth for growth's sake, and that it was only during the last decade that the dangers of indiscriminate industrial development ^{have been} ~~were~~ realised.] We have further discussed the problems of environmental pollution and its estimation, by discussing empirical studies so as to ~~to~~ lend practical value to our ideas.

The most important finding of our study is that the incorporation of environmental criteria into theory, and State Legislation to that effect would actually increase economic efficiency by way of conservation and better use of scarce resources, recovery from waste, recycling of waste and finally reduction of social burden. The interesting aspect of the finding is that, some of these benefits cannot accrue without Environmental Legislation.

I wish to express my gratitude to Prof. Venkatramaiah of the Gokhale Institute of Politics and Economics, Pune, who guided me and helped me organise my ideas into a systematic and intelligible order.

I am also grateful to the Ness Wadia College of Commerce, who granted me a study leave, and the University Grants Commission for offering me a fellowship under the Faculty Improvement Programme. My thanks are also due to members of the staff of the Gokhale Institute. Shri Shashikant M. Kulkarni was kind enough to type this paper neatly and in time. Finally, I am indebted to Prof. Suresh Gajendragadkar of V.J.T.I.(Bombay) for initiating me into taking up this study.

Vijay P. Paranjpye

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Introduction

1.2 All discussion of India's planned growth and development has till now centered around the ways and means of maximizing the Gross National Product, and this has been under the assumption that GNP maximization is the true and sufficient indicator of National Welfare. The contention of this paper is that this approach, needs to be changed, so that a new approach incorporating certain environmental factors can be developed, which will be a better indicator of the Net National Welfare. The new approach will require an identification of all types of ^{non-paid} 'social costs' incurred in the process of economic development. Further, if an estimation of such costs is made, the 'aggregate social cost' could be deducted from the 'Net National Product' so that we get a realistic idea about the national economic performance. ['Social cost'

has not been accounted so far in our national income calculation, and it may be a long time before we can develop methods of estimating such costs.]

1.2 Chapter I of this paper takes a review of the theoretical discussion on the problem of 'social cost'. Chapter II will define environmental factors, and attempt an identification of such problems in India. The major stress will be on elaborating the problem of environmental pollution as experienced in the Bombay-Pune region during the industrialization

process, in the last few decades. Chapter III discusses the legislative measures on environmental protection and its impact on resource use and resource allocation. The experience of a resin producing firm viz., Dr. Beck and Co. (India) Ltd., Pimpri, is investigated as regards the effects of legislation on the firm's resources. At the end, conclusions and the further areas of work possible in this field are indicated.

Relation of Growth with other indicators

1.3 It has been recognized, (especially in India) that growth must be related to certain other indicators (besides average per capita product), such as the distributive justice, concentration (or dispersion) of developmental efforts, level of employment (unemployment), dependence of foreign aid, and finally economic and monetary stability. This realization can be ^{noticed} ~~observed~~ while going through the five-year plans, the fiscal and monetary policy, industrial policy and the foreign trade policy. But there is one category of factors which has not been paid attention to viz. the endowment of natural factors, problems concerning environmental pollution, depletion of land and forest resources, degradation of environmental amenities and neglect of ecological factors. Unless these indicators are included, growth becomes very lopsided and distorted.

The Problems of Developing Countries

1.4 Briefly, the problem of developing countries can be divided into two groups: 1) the problems of poverty and

the lack of adequate development ~~and~~ and 2) the problems arising out of the process of development itself. The problems the first category e.g. poor housing and sanitation, poor quality of water (potable) and nutrition, public health and other public amenities - are definitely of prime importance in urban as well as rural areas. These can be solved (partly) by the development process itself. But, if this development process ignores crucial environmental factors, the economic growth, while solving some problems, creates new problems which are as severe as the problems it is trying to solve. Economic growth has traditionally and invariably been accompanied by rising disparities in incomes, (both between regions and classes of population) and a deterioration in social and cultural conditions. The sudden and rapid creation of large productive capacities in industry and agriculture, growth of complex systems of transport and communication, ~~and~~ ^{mammoth} city agglomerations, have been accompanied by damage and disruption of the environment, particularly in the industrially advanced countries. An environmentalist approach, we suggest, would greatly avoid, to the extent possible and feasible, the mistakes and distortion that have been characteristic of the western industrialized economies. For the affluent west it was a question (and still is) of the ^{the} quality of life; for us it means our very existence. —

Growth Vs. Environment

1.5 Concern for environment is not counter to, but essentially a complement of our commitment to development. This

fact must be recognized. This awareness will provide a new dimension to the concept of development itself. There are several fields where the environmental objectives coincide with the conventional developmental strategies, and in such cases no conflict would arise (e.g. in case of efficient utilization of raw materials and power, recovery from or recycling of industrial waste, conservation of forests and soil fertility, optimal utilization of water and so on.) But even when the objectives conflict (e.g. the short-run costs and long-run-benefits of certain investments, or the sheer urgency of ~~expediting~~ certain problems) choices could be made after considering all the long term and short-term costs (including social costs) and benefits of the alternatives. The problem will be essentially that of 'time preference'.

1.6 The broader definition of growth and development, would include incorporation of air and water quality standards, protection and conservation of natural resources, avoidance of (or compensation for) ^{non-paid} social costs, nutritional and health standards, greater emphasis on social security, provision of public utilities, and realization of distributive justice. Common policies integrating the developmental and environmental objectives on a) location of industries, b) land and water-use policy, c) comprehensive physical and financial planning (keeping in mind the existence of a strong private sector), d) foreign trade policy etc, ^{would have to be evolved.} The new concept would require modifications in the use of fiscal and monetary

incentives and disincentives, ^{yes,} grants and subsidies. While preparing the plan drafts, the ^{non-paid} 'social costs' of alternative projects and investments ^{would have to be considered} so that public discussion on the pros and cons of alternative projects could take place.

Environmental Education

1.7 Environmental awareness cannot come automatically, but has to be introduced consciously at all levels of the education system, so that ideas and awareness can percolate into the actual industrial and agricultural practices. Today, there is no faculty which provides comprehensive courses in environmental studies. Introduction of new papers (e.g. Economics of Environment) could be introduced at the graduate and post-graduate levels. There is also a need for research in environmental education so that it does not get restricted to a few branches like engineering, microbiology, biochemistry etc.

Environmentalism and international trade

1.8 It must be realized immediately that environmental legislation in developed countries will have a great influence and impact on the trade of developing countries (often adversely) e.g. restrictions on exports and imports, resource and energy use strategy and so on.

Legislation in India

1.9 The first such Act was passed in ~~1912~~ ¹⁹¹² and was known as the Bombay Smoke Nuisance Act. It has of course been modified upto March 1972. The other important legislation in India is "The Maharashtra Prevention of Water Pollution Act

1969". Besides these two we have the Tree Act, the I.S.I. specifications and so on. Rather surprisingly, the administrative awareness appears to be greater than ^{that} in the academic and theoretical discussions in India. This situation ought to be changed as early as possible, so that more people become aware of these problems.

The main cause

1.10 The general neglect of, and apathy towards environment concern, is rooted (theoretically) in the problem of 'Externality' - which is discussed as a minor ~~cause~~ ^{aberration} having only academic interest in our conventional economic theory. It is the main purpose of this study to try and elevate this concept to a position of respectability, from its present place as a minor cause of 'market failure'. The misunderstanding regarding 'externality' has been caused by ~~the~~ ^{the} mistaken classification of air, water, and privately unowned land, as "free goods" in the classical and neo-classical terminology. These factors should have legitimately been called 'social goods', having the property of scarcity, as much as all other commodities. The result of this mistake has been (historically) an indiscriminate exploitation of air, water and forest (land) resources, and overexploitation of mineral resources. The second important result has been the total deletion of ^{non-paid} 'social costs' arising from such economic activity, from the cost calculations of entrepreneurs. ~~In~~ ⁱⁿ ~~this connection,~~ ¹ ~~it~~ ^{-there for} is no wonder that the existing 'product-mix' and 'use of technology' does not reflect either the

'cost to society' or the resource endowment of our country. Indian producers have "shifted" the burden of external costs on to the society ^{simply} because it ~~was~~ ^{has been} very easy to do so.

Unawareness of the social burden

1.11 The society at large has been either unaware of this fact or has been unable to counteract against it through the prevailing market framework. The practical difficulty of correcting this injustice is the lack of time-series data for calculating ^{non-paid} ~~the~~ social costs (or at least imputing them objectively). A lot of research can be done in this field.

The basic idea of constructing and using the social cost calculus is to make all individual enterprises (and also individual farmers) responsible to the society, and treat

national resources with respect. ^{But this idea seems to be absent,} ~~This makes it essential to~~ ^{It has therefore become necessary to include such} ~~include social~~ costs in the traditional cost-benefit analysis.

Distributive justice

1.12 Perhaps the need for distributive justice is the most powerful argument for the environmental ^{ist} approach. Experience shows that the benefits of growth viz. availability of comfort and luxury items, accrue mainly to the rich in India. They can also afford to ward off the pollution effects of growth. The

^{non-paid} ~~h~~ 'costs of growth' have to be borne more by the poor in the form of filthy living conditions, air and water pollution, [✓] loss of natural amenities, impairment of health, congestion and so on. Therefore, the question is not - Can a poor country afford to invest for environmental protection? but is a

developing country justified in bringing about growth for the rich at the expense of the poor in the society? Environmental protection, restrictions on enterprises and provision of better facilities is ^{only} a small step towards the correction of distributive injustice.

Economic necessity

1.13 Finally, concern for environmental variables is important not only from the social and aesthetic point of view but also as a tool ^{for} maximizing efficiency in production *and* ~~as well~~ as resource utilization.