

## Volume Introduction

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This volume completes the six-volume series *Frontier Issues in Economic Thought*, which has been produced by the Global Development And Environment Institute at Tufts University. The series has explored crucial issues that are essential to economic theory but that also require insights from other perspectives and disciplines. Earlier volumes have covered the topics of ecological economics; consumption and the consumer society; economic and social goals; the changing nature of work; and the political economy of inequality. In a sense this volume represents the capstone of the series. The earlier volumes have all raised challenges to the standard theories, which have been used both to define and to guide economic development. This book explores possibilities for a different kind of development, one that would integrate the goals of economic prosperity, social justice, and healthy ecosystems.

Our title suggests that the kind of development we would wish to sustain can be described under two headings: social and economic. Of these two concepts, economic development is, historically, the more familiar. Its objective has often been defined (in practice more than in formal theory) as the expansion of consumption and Gross National Product. Such objectives are obviously important for the world's poor, but there is a growing consensus that the single-minded pursuit of growth should not dominate development policy. While this most clearly applies to those countries that are already relatively affluent, it is also relevant to nations whose need for greater economic output is matched by their urgent need for social equity and environmental protection.

The social dimension – often reflected in the term *human development* -- may be defined as progress towards enabling all human beings to satisfy their essential needs, to achieve a reasonable level of comfort, to live lives of meaning and interest, and to share fairly in opportunities for health and education. Thus defined, human development is a final goal: an end to which other important pursuits, such as economic development, are the means.

Where, the reader might ask, is the environment in this list of ends and means? There are those who passionately believe that the preservation of a healthy environment is an end in itself; while others, who also consider themselves environmentalists, take a more anthropocentric approach, caring about environmental integrity because it is essential for the achievement of most other goals that go beyond a very short time horizon.

Sustainable development can be pursued without resolving such philosophical issues. The great contribution of the word "sustainable" is that it introduces the issue of time. The growing popularity of the term indicates an increasing awareness that seeds of self-destruction can be contained within short-term achievements in development as it used to be conceived; that is, economic-development-as-GNP-growth. When we pair economic development with human development -- giving the latter precedence in defining final goals, and never forgetting that economic development is valuable only as a means to these final ends -- then we are less likely to engage in short-sighted activities whose successes will collapse upon themselves. We are also obliged to place a high value on ecosystem health -- whether we care about it as an end in itself, or because we recognize that continued human well-being depends on it.

In seeking an alternative approach to economic development it is important to consider not just the views of economists, but also of those who study the social and political aspects of development. It is important not just to accept the recommendations of experts from the global North, some (though not all) of whom may feel sure that the economic successes of the United States and Europe point the way for other nations, but to listen to voices from the South, who have a sharper awareness of global inequities. And it is essential to understand the perspective of ecologists and other natural scientists, who tell us that planetary ecosystems are not simply resources to be exploited, but the complex inheritance of millenia, now endangered by ever-growing human impacts.

This volume aims to synthesize these perspectives. We have drawn from a variety of disciplines, always bearing on economic issues but not always limited to economic theory. We have explored environmental and social perspectives, issues of population and resource use, globalization, corporate power, and strategies for achieving a more sustainable path at the local, national, and global levels. In so doing, we have reviewed an extensive literature on sustainable development, which has proliferated since the World Commission on Environment and Development's 1987 report, *Our Common Future*. The methodology of the *Frontiers* volumes, summarizing leading articles on each topic, allows us to present the voices and draw on the expertise of many different authors, while presenting an overview of each topic area in the introductory essays.

We hope that this effort will be of use to scholars working to advance the understanding of the meaning of sustainability, to policy-makers interested in reforming current economic systems, and to students seeking a broad overview of the area which nonetheless provides significant analytical depth. In this introduction, we seek to define the basic issues of sustainable development and introduce themes which will be developed from a variety of perspectives in the rest of the volume.

## **Sustainable Development: Defining A New Paradigm**

In 1987 the World Commission on Environment and Development sought to address the problem of conflicts between environment and development goals by formulating a definition of sustainable development:

Sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs. (WCED, 1987)

In the extensive discussion and use of the concept since then, there has been a growing recognition of three essential aspects of sustainable development<sup>1</sup>:

- *Economic*: An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances that damage agricultural or industrial production.
- *Environmental*: An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made

in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources.

- *Social*: A socially sustainable system must achieve fairness in distribution and opportunity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

Clearly, these three elements of sustainability introduce many potential complications to the original, simple definition of economic development. The goals expressed or implied are multidimensional, raising the issue of how to balance objectives and how to judge success or failure. For example, what if provision of adequate food and water supplies appears to require changes in land use which will decrease biodiversity? What if non-polluting energy sources are more expensive, thus increasing the burden on the poor, for whom they represent a larger proportion of daily expenditure? Which goal will take precedence?

Despite these complications, the three principles outlined above do have resonance at a common-sense level. Surely if we could move closer to achieving this tripartite goal, the world would be a better place; equally surely, we frequently fall short in all three respects. Thus there is ample justification for the elucidation of a theory of sustainable development, which must have an interdisciplinary nature. In exploring the nature of such a theory it makes sense to start with the concept of development itself, and then turn to the requirements for sustainability.

### **Development In Practice – Achievements And Failures**

From a historical point of view, the concept of economic development gained broad acceptance only relatively recently. As the historian of economic thought Roger Backhouse puts it:

Development economics in its modern form did not exist before the 1940s. The concern of development economics, as the term is now understood, is with countries or regions which are seen to be under or less developed relative to others, and which, it is commonly believed, should, if they are not to become ever poorer relative to the developed countries, be developed in some way.  
(Backhouse, 1991)

This definition immediately points up a significant difference between development economics and much of the rest of economic theory. In neoclassical economic theory, an effort has been made to achieve a positive rather than a normative perspective – that is, to describe what is rather than positing what should be. Development economics, in contrast, is explicitly normative, as Backhouse's description makes clear. As such, it cannot avoid concern with social and political issues, and must focus on goals, ideals, and ends, as well as economic means.

Beginning after the World War II, economists, other social scientists, and policymakers thus adopted a framework of thought which was much more ambitious in its scope than previous formulations of political economy. The announced goal of economic development policy was to raise living standards throughout the world, steadily providing more goods and services to an expanding population. An implicit set of goals coexisted with this official purpose: to reconstruct Europe after World War II, to open markets for Western goods, and to contain communism. Communist economies, of course, had already adopted a model of development through central planning, and

part of the impetus of early development theory was to provide an alternative path. W.W. Rostow, for example, gave his seminal work, *The Stages of Economic Growth*, the subtitle: *A Non-Communist Manifesto* (1960). The two sets of goals for development sometimes came into conflict, with the demands of the Cold War distorting the original, more idealistic, perspective.

The international economic institutions set up after World War II, including the International Monetary Fund, the World Bank, and the General Agreement on Tariffs and Trade, were specifically designed to provide a stable framework for world development. The World Bank in particular was intended to provide necessary capital for infrastructure investment in developing nations. This infrastructure, it was hoped, would provide the basis for more productive agriculture and industrialization. However, as the process of development proceeded, the original assumptions underlying this strategy came into question.

One line of critique, which developed in the 1970s, emphasized the need for a specific focus on basic needs (Streeten et al. 1981). Education, nutrition, health, sanitation, and employment for the poor were the central components of this approach -- reflecting an acknowledgment that the benefits of development did not necessarily "trickle down" to those who needed them most. The human development perspective has endured and has been expanded in the works of economists such as Amartya Sen (Sen 1981, 1992, 1999; Anand and Sen 1996). While it has remained an undercurrent in mainstream development theory, it has inspired the creation of the United Nations Development Programme's Human Development Index (HDI), which uses health and education measures together with Gross Domestic Product (GDP) to calculate an overall index of development success (UNDP 1990-1999); see Part II of this volume and Part X of Volume 3 in this series (Ackerman et al. 1997) for a detailed treatment of the HDI and associated measures.

A harsher critique came from analysts in the global South, who viewed the process of development as promoting structural relationships that systematically benefited the North at the expense of the South. Theorists including Celso Furtado and Raul Prebisch argued that pervasive inequality and unfavorable terms of trade would lead to a state of persistent "dependency," in which wealth would flow from the "periphery" of less developed economies to the "core" of dominant nations. This perspective was associated with an advocacy of strong state intervention to promote import-substituting industrialization, using tariffs and state direction of economic development. (See Part III of this volume for further discussion).

Following the debt crisis of the early 1980s, international lending agencies promoted a strategy of "structural adjustment," including liberalization of trade, eliminating government deficits and overvalued exchange rates, and dismantling parastatal organizations deemed to be inefficient. Structural adjustment was seen as correcting the errors of earlier, government-centered development policies which had led to bloated bureaucracies, unbalanced budgets, and excessive debt. However, critiques of structural adjustment policies have found them at odds with basic-needs priorities (see Part VII of this volume). Market-oriented reforms have often led to greater inequality and hardship for the poor even as aspects of economic efficiency improved. The tension between the basic-needs and market-oriented perspectives on development has thus remained strong.

At the same time that concerns were growing over the harsh social impacts of structural adjustment an environmental critique of development gained prominence. The 1987 report of the World

Commission on Environment and Development (the Brundtland Report) focused attention on the relationship between development and its environmental effects, strengthening and advancing concepts which had been introduced at the United Nations Conference on the Human Environment at Stockholm in 1972. Under the leadership of Herman Daly and Robert Goodland, the World Bank's Environment Department – in sharp contrast to other, more powerful, departments of the Bank -- produced numerous reports documenting the adverse environmental effects of unrestrained development, and calling for a transition to sustainability (Daly and Goodland 1991; Goodland, Daly, and El Serafy 1992, 1994). The United Nations Environmental Programme (UNEP) also produced a series of reports on environmental issues, including economic analysis of the impacts of structural adjustment (UNEP, 1996) and most recently the comprehensive report *Global Environmental Outlook* (UNEP, 2000).

At the turn of the century, what is the 50-year record of the broad-reaching, and historically fairly young, effort at global development? The concept has been widely accepted, by countries of varied political structure. There have been remarkable successes -- notably in East Asia -- and worldwide progress both in standard GDP measures and in measures of human development such as life expectancy and education. There have also been areas of slow or negative growth, especially in Africa, where GDP increase was slow and food production per capita in decline even before the rapid spread of AIDS devastated many countries and dramatically lowered life expectancies.

Globally, most countries have made significant advances both in GDP and in Human Development Index measures (see Part II of this volume and summarized article by Streeten in Part VII). But overall the record of development on a world scale is open to two major criticisms:

- The benefits of development have been distributed unevenly, with income inequalities remaining persistent and sometimes increasing over time. The number of extremely poor and malnourished people has remained high, and in some areas has increased, even as a global middle class has achieved relative affluence.
- There have been major negative impacts of development on the environment and on existing social structures. Many traditional societies have been devastated by overexploitation of forests, water systems, and fisheries. Urban areas in developing countries commonly suffer from severe pollution and inadequate transportation, water, and sewer infrastructure. Environmental damage, if unchecked, may undermine the achievements of development and even lead to collapse of essential ecosystems.

These problems are not minor blemishes on an overall record of success. Rather, they appear to be endemic to development as it has taken place over the past half-century. While those who have consistently voiced criticisms of mainstream development policies have generally lacked the power to change those policies, the importance of these issues is being increasingly acknowledged. Former World Bank chief economist Joseph Stiglitz, for example, has called for alternatives to the mainstream "Washington consensus," which sees market-oriented reform and fiscal stringency as the key to development policy (Stiglitz 1997, 1998). New thinking on development policy is clearly in order.

The straightforward view of development as an upward climb, common to all nations but with different countries at different stages, is misleading and certainly inadequate for the twenty-first century. The absolute gaps between rich and poor nations, and between rich and poor groups within individual countries, are widening, not narrowing. And even if we can imagine all nations reaching stable populations and satisfactory levels of GDP by, say, 2050, can we envision the planetary ecosystem surviving the greatly increased demands on its resources and environmental absorption capacity?

A growing awareness of these challenges to traditional development thinking has led to the increasingly wide acceptance of the concept of sustainable development. The World Bank has produced research on indicators of sustainable development, in particular measures of genuine savings: "the true rate of savings in a nation after due account is taken of the depletion of natural resources and the damages caused by pollution" (See World Bank 1997a and summarized article by Hamilton and Clemens in Part I of this volume). This new attention to a combination of social and environmental factors indicates that lines of thought which were formerly at the fringes of development policy are making their way into the mainstream.

### **A Synthesis Of Perspectives**

Drawing on economic, ecological, and social perspectives, we can identify some of the main themes which are integral to the construction of a new paradigm:

- The original idea of development was based on a progression from traditional to modern mass-consumption society. Within this framework, a tension has developed between the promotion of economic growth and the equitable provision of basic needs. Development as it has proceeded over the last half-century has remained inequitable.
- The conservation of ecosystems and natural resources is essential for sustainable economic production and intergenerational equity. From an ecological perspective, both human population and total resource demand must be limited in scale, and the integrity of ecosystems and diversity of species must be maintained. Market mechanisms often do not operate effectively to conserve this natural capital, but tend to deplete and degrade it.
- Social equity, the fulfillment of basic health and educational needs, and participatory democracy are crucial elements of development, and are interrelated with environmental sustainability.

Taken together, these observations suggest new guidelines for the development process. They also require modifications to the goal of economic growth. Economic growth in some form is required for those who lack essentials, but it must be subject to global limits and should not be the prime objective for countries already at high levels of consumption. As Alan Durning has suggested, a moderate level of consumption, together with strong social institutions and a healthy environment, represents a better ideal than ever-increasing consumption (Durning 1992).

Sustainability is more than limits on population or restraint in consumption -- though these are important. It means that in our choice of goods and technologies we must be oriented to the

requirements of ecosystem integrity and species diversity. It also implies that the apparent independence of economics from biophysical science is a luxury we can no longer afford.

In pursuing these modified development goals, it will be necessary to recognize the limits of the market mechanism. During the structural adjustment phase of development policy, the virtues of free markets became an article of faith for policy-makers; this dogma will have to be revised, as the World Bank now acknowledges:

. . . Reducing or diluting the state's role cannot be the end of the reform story. For human welfare to be advanced, the state's capability – defined as the ability to undertake and promote collective actions efficiently – must be increased. (World Bank 1997b).

Although under some conditions markets may excel at achieving economic efficiency, they are often counterproductive in terms of sustainability. Guided markets may often be useful tools for achieving specific environmental goals, and there is an extensive economic literature on "internalizing externalities" so as to reflect environmental costs and benefits in the market.<sup>2</sup> But, in a broader perspective, it is the social and institutional processes of setting social and environmental goals and norms which must guide sustainable development policy.

In this volume we present voices from different disciplinary perspectives, contributing essential elements of the new paradigm of development. In order to cover these wide-ranging issues in a single volume, 66 articles and book chapters have been summarized. In Part I, we emphasize the environmental perspective. The concept of natural capital is more specifically defined and explored, together with efforts to integrate environmental issues more fully into economic theory. Part II focuses on the social dimensions of sustainability, reviews the concept of human development, and discusses the role of social capital and democratic government. Part III gives special attention to the Southern critiques of the Northern-dominated development regime, and investigates what would be required to establish common ground between North and South on a vision of sustainability.

After reviewing these general perspectives we move to more specific analyses in Parts IV, V, and VI. These sections deal with the relationship between human population and resource needs and the planetary ecosystems which supply these needs. Part IV focuses on population growth and its impacts on the environment, balancing the concept of ecological limits with the social and political factors which affect both the rate of population growth and its social and ecological effects. Part V considers agricultural ecosystems, biodiversity, and resource management, looking both at the extent of damage to ecosystems from human exploitation and the prerequisites for more sustainable resource management. In Part VI, we examine the application of the concept of sustainability to industrial systems and energy use, reviewing analyses from the field of industrial ecology, as well as the debate over responses to global climate change.

Institutional and policy issues provide the themes for Parts VII to X. Part VII examines the sweep of globalization, especially its effects on social and ecological sustainability. Critiques of globalization raise the issue of how to alter current trends in a more sustainable direction. Efforts to redirect policy and practice in the direction of sustainability are discussed in Part VIII, which looks at efforts to reform corporate policies through stakeholder activism and government policy. Part IX, which deals with government policies at the national and local levels, provides an overview

of analytical and practical approaches to promoting sustainability. Part X takes on issues of global institutional reform, reviewing proposals both for reform of existing institutions and for creating new institutions oriented toward global sustainability.

### **The Relation of this Book to the Rest of the Frontiers Series**

Sustainable Human and Economic Development concludes the series of six topics which we selected for treatment in the Frontiers series, beginning our conceptualization and research in 1993. We will briefly summarize how the first five volumes have led up to Volume 6.

Ecological economics (the topic of Volume 1) is an important new way of understanding the interactions between human economic behavior and ecological realities. We have drawn on this to support our analysis of the environmental constraints within which economic development must occur.

Much of the thrust of contemporary economic activity goes toward promoting a consumer society (Volume 2). In the present book we probe the environmental and social stresses created by this orientation, considering how it contributes to unsustainability in the economies of the world today.

In Volume 3 we posited that any notion of development or progress must include the idea of improvement in human well-being. We also noted that this central idea is often lacking in, or orthogonal to, standard prescriptions for economic development. Volume 6 assumes the positions suggested in Volume 3 (just as Adam Smith's *Wealth of Nations* assumed the positions reached in his *Theory of Moral Sentiments* -- to make a rather immodest comparison!), and seeks an understanding of how we can sustain a kind of development that does progressively enhance human well-being.

Work is a defining characteristic of most human lives, including the worker's experience on the job, and the rewards (income, access to other resources, learning opportunities, respect, etc.) that may accompany it. Any possibility of progressing to a preferred state -- and of sustaining progress over time -- must take into account the fast-changing nature of work in the modern world. This was the subject of Volume 4.

Another issue which will in crucial ways determine what kinds of progress we can have, and sustain, is the topic of inequality. Volume 5 took the political economy approach of stressing the issues of power and money which, together (and they often operate together), account for a large portion of what human beings feel as inequality. Power inequalities help to determine who gets to decide what kind of world we will strive to achieve. Money inequalities have enormous impacts upon patterns of consumption, which in turn help to determine both the development of human potential (for work, for enjoyment, and for understanding problems and solutions) and also the human impact on the environment. Many of the world's societies today are characterized by extreme inequality in both these areas. A sustainable society, while not necessarily completely egalitarian, must be one in which the degree of inequality is tempered and limited by generally accepted concepts of basic social justice.



We could simplify and summarize by saying that Volumes 2, 4 and 5 of the Frontiers series examine what is known about three critical areas of human life: the fulfillment of basic and other needs and wants; the experience of work; and the sources and effects of inequality. (These may be equated with the three fundamental topics of economics: consumption, production, and distribution.)

Volumes 1 and 3 emphasize the ways in which the field of economics interprets human experience: how our economic behavior interacts with our natural environment, and how our economic theories relate to our human goals. Our special objective in these volumes was to inject into economics a keener awareness of context and of goals, because these are two of the three elements that we believe to be most seriously missing from standard economic theory.

The third critical missing element is time, which is essential to an understanding of economic development. Volume 6 stretches out the time context, looking to the past and the future to examine change over time in economic conditions, and in the associated aspects of human well-being and ecological health. The effects of past development in shaping current social and environmental conditions, and the effects of present development practices on the future, are themes which recur throughout the volume.

The essential question of this book is: What is it that we should develop and sustain, in order to make progress towards adequate needs-satisfaction and value-filled lives for all human beings? In searching for answers to that question, we present both the general principles and some of the specific requirements of sustainable development. Development theory, as we have noted, has always been normative as well as positive in its analytical vision. Today we require a new normative vision drawing on strong but sometimes neglected traditions in economics, political and social theory, and combining traditional wisdom with modern technology. Fortunately there is now an extensive effort by theorists and practitioners from many disciplines to transform the concept of sustainable development into reality. The goal of this volume is to represent the best of these efforts, and to help point the way towards a more realistic vision and more effective practice.

## Notes

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1. See, for example, Holmberg (1992); Reed (1997).
2. See, for example, Markandya and Richardson (1993).