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# Economic Policies for Sustainable Development and Growth ALSHADLI EDWICK\*

\*Member of lecturer staff faculty of economics and political science, Tripoli University

## **ABSTRACT:**

There is growing concern that continued expansion of the world economy will cause irreparable damage to the earth's environment and a reduced quality of life for future generations. This fear rests on two intuitive notions: first, that more output requires more inputs and so the earth's 'sources inevitably will, earth's 'and so the depleted by continued growth of production and consumption, and second that more output means more emissions and waste, and so the earth's 'sinks' inevitably will become overburdened by continued economic growth. Sustainable development is often defining as development that meets their needs of present generation without compromising the ability of future generations to meet their needs. The paper conclude that a transition to a sustainable way of life means taking steps now to reduce the risk of serious environmental damage and related socio-economic problems. The paper found that basic research on many of the critical thresholds beyond which damage to individual species in an ecosystem will occur is poorly understand.

The paper note that more research will be needed to provide greater precision to the relationships between economic policies and sustainable development. In highlighting a number of the crucial linkage indicates the breadth and significance of the economy-wide dimension to environmental management.

The paper finding, that the researcher has seen that sustainable development has come to the top of the international and domestic policy agendas. However, while the notion of sustainability is widely accepted, its precise content has remained elusive.

*Keywords:* economy, environment, generation, growth, outcome, humankind

## 1. INTRODUCTION

Sustainable development is often as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The conveniently flexible world 'need' renders this definition inoperable. To many economists 'sustainability' suggests a steady state and this is the interpretation that will be used here. One of many issues

surrounding sustainability is the growth controversy. Some analysts argue that the world has already reached it limits of growth and that further growth will take the plant further away from sustainability. Indeed (Daly, 2002) argues that 'sustainable growth' is a contradiction in terms. The line of reasoning advanced by this school is often eclectic. For instance, (Goodland and Daly, 2003) argue that 'the North should stabilize its rate of resource consumption to free resources for the South and to free up ecological space as well. It is not exactly clear which resources and space are being referred to, but the authors go on to state that 'the North can continue to develop but must cease increasing throughput growth. If the expanding global economy is bounded by a finite inexpandible the traditional view is characterized as one in which Northern growth is essential to alleviate Southern poverty. Other researchers, such as (MacNeil, 1989), argue that growth is greatly needed to further development and prevent environmental degradation. The (World Resources Institute, 2008) argues that alleviating absolute poverty also has important practical consequences for sustainable development degradation, and rapid population growth.

This paper attempts to make a simple, empirically-based argument for the growth-is-necessary school of though. Although the conclusion is far from, novel analytic and empirical approaches adopted hopefully are useful. To put it bluntly, people make pollution and poverty makes people. The simple fact is that current population growth rates, if they we maintained would lead to an unsustainable world population. Getting the demographic right, therefore, must be part of any planetary environmental strategy. Higher average output and income in the developing world, however, are not without environmental costs. There is now evidence that per capita emission rate rise at low levels of income, but fall at higher levels (Grossman and Kreuger, 1993).

Also, this paper argues that the world find itself in an awkward position. While most Less-Developed Countries (LDCs) are near the end of the explosive phase of their demographic transitions, they appear to be right at the n of the rapid-emission-growth phase of their ecologic transitions. As consequences, global environment damage is likely to increase before it declines. Despite this inevitable deterioration of the environment, stopping economic growth would be exactly the wrong prescription. Such medicine would simply replace industrial pollution with more Malthusian

deteriorations of the environment, especially in the poorest countries, (Goodland, 1992).

#### 2. IS GROWTH SUSTAINABLE?

Sustainable development has come to the top of the international and domestic policy agendas. However, while the notion of 'sustainability' is widely accepted, its precise content has remained elusive. 'Sustainable Development' is often defined as development that meets the needs of present generations without compromising the ability of future generation to meet their needs. This and similar definition of sustainable development underline the intergenerational responsibilities placed on the earth's inhabitants. However, the concept of needs is one of the most complexes in economics, and to imbed it in the definition. Accordingly, it is necessary in which future growth is not compromised by that of the present.

This paper examines the economics of sustainable development. It is concerned with the interaction of economic policies, and the environment; in particular with the question is growth sustainable? The paper draws on economic theory to provide fresh perspectives on this issue. It provides an indication of the 'state of the art' in the economic analysis of sustainability issues, and then extends the economic literature by stretching the theory to incorporate sustainability issues. In line with our comparative advantage and to keep the paper manageable, however, we confine ourselves to the interface of economic theory and sustainability, and thereby neglect a range of elements which are integral of sustainable development. These include considerations of equity, gender, education, civil rights, culture and other aspects of human development. Development cannot and should not simply be associated with economic growth alone and sustainability cannot be confined to maintaining growth. However, the link between sustainable resource use and growth is, perhaps, the key economic question.

The literature on sustainable development has necessarily focused on resource use. However, it is ironic that, while economics is often defined as the science of the allocation of scare resource, economists have been marginal to the sustainability debate. A review of the growing literature on sustainable development reveals the dearth of formal economic analysis, this stems mainly from environmentalists' general skepticism towards economists and the resulting limited extent of the latter's participation in the debate. Among those economists who have contributed, two groupings may be identified. One is the individuals who have distanced themselves from

the mainstream and rejected neoclassical economics on the grounds that it is part of problem not the solution. In this vein, (Daly, 2002) and others argue that development cannot be premised on comparative with sustainable development.

The other set of contributors has sprung to the defence of orthodox economic principles. They comprise a growing group of micro-economists who, under the rubric of environment of resource economics, have sought to adapt the neoclassical framework to place greater emphasis on environmental degradation. Other has sought (Dasgupta and Heal, 1979), (Pearce and Turner, 1990), to demonstrate how the development of appropriated incentives and regulatory structures is not only compatible with sustainable development, but contributes towards it.

## 3. THE ECONOMY-WIDE DIMENSION: FROM MESS TO MACRO

Until recently the economic analysis of environmental impacts was principally associated with adaptations of traditional cost-benefit analysis captures the direct effects of investment on a defined population. It may be extended to account for environmental externalities by the imaginative integration of non-market impacts. However, the usefulness of this approach is confined to assessing the direct effects of specific microeconomic actions or projects.

Economists have become increasingly aware that the assessment of the impact of direct investments needs to be complemented by the analysis of the overall and systemic effects of economy-wide policies. The influence of the economy-wide dimension on policy making has been highlighted in recent years by the introduction of supply-side and structural adjustment policies which include exchange rate, trade and fiscal reforms, which seek to correct relative prices and incentives. The establishment of an appropriate economy-wide incentive framework, together with a facilitating regulatory and institutional structure is now widely accepted as a central pillar of economic policy in both rich and poor countries. The effects of economy-wide policies on production and consumption have been explored mainly with respect to agriculture and food.

Unfortunately, economists have neither the theoretical tools nor the empirical data predict how economy-wide policy reforms impact on the environment. Indeed, the necessary theoretical and empirical analysis is only now being initiated. This paper aims to stimulate such analysis. It is a first step and as benefits a new subject area, improvements may be expected

as the 'dismal science' of economics evolves through its usual complex and lengthy process of debate and investigation. It is to these theoretical debates and empirical investigations that we now turn.

## 4. THE EFFECTS OF GROWTH

To the extent that economic growth is linked to environmental degradation (Grossman and Krueger, 1993) show that incomes are also important. For most pollutants, an inverted or bell-shaped relationship between economics issues and the environment is defined; environmental quality deteriorates in the early stages of economic growth but higher levels of per capita income improvements are evident. The Turning points are estimated for the different pollutants, and vary considerably. The environment issues plays a main goal to limit the income. Other pollutants continue to rise, before declining at the approach to high income levels. For carbon dioxide and nitrous oxide, the turning points appear to be well beyond the level on income currently attained by the richest countries.

Whereas the link between per capita income and environmental quality is made, the transmission mechanism is not simply related to composition of output by which higher growth automatically increases the share of cleaner technologies through their substitution for older, dirtier processes. Rather, the link between income and pollution appears to be driven by the demands of the economic growth. This policy dimension is a cause for some optimism as it indicates that the articulation of greater pressure can yield a cleaner environment. The development of cleaner technologies in the richer countries and their transfer to the poorer countries is also, potentially a key element; such transfer should be seen as part of a strategy to shift the turning point downwards as later generations of economies achieve development.

Current population growth rate unsustainable environmentally, so that reducing fertility should be a key element in sustainable development policies. In linking pollution to economic growth, Baldwin, 1998 notes that while many developing countries are near the end of the explosive stages of their demographic transitions, they appear to be at the beginning of their rapid-emission-growth phases. Consequently, global environmental damage is likely to increase before it declines. However, slowing economic growth would exacerbate the problem, because it would accelerate population growth and slow adoption of cleaner technologies, with severely negative consequences, particularly in the poorer countries.

Adding the demographic dimension highlights the fact that raising average income and output levels will not be an unmitigated blessing for the environment. The extent to which developing country growth will be associated with a worsening environment depends critically on policy. Policies which reduce demographic pressures are a vital element in sustainable growth. Higher incomes are important, but so too are policies which reduce personal risk and the need for large families. Improvements in the security of employment, education and training, pension policies, social security and the employment of women are especially important in this regard, for in (Baldwin's, 1998) view they entail significant and hitherto largely unaccounted positive externalities for the environment. Population growth has been shown to be inversely related to levels of income, hence economic policies which promote growth and equity will reduce the long-term population-pollution threat to sustainable development.

## 5. DEFINITION AND MEASUREMENT

The meaning of 'economic development' has been a subject of continual debate within the economics profession, but in terms of the widely accepted, (Dasgupta, 2003) definition, economic growth requires that income and consumption be expanded. Maintenance costs, defined very broadly, are incurred in producing income, and if all required maintenance is undertaken, income will not fall through time. Population growth, however, necessitates investment expenditures sufficient to generate at least enough new income to keep per capita income constant. The demographic explosion means that the rate of investment be necessary to maintain constant per capita incomes is high and rising. This, together with increased trans-national interdependence and risk, is placing greater responsibilities on government.

Others note that the use of natural resources is part of economics development. It poses a problem from the perspective of economic development only if the required investments derived from these resources or the maintenance required to overcome environmental degradation are not accounted for. The concern is that the costs of environmental maintenance are greater than have been experienced historically, and that future growth of per capita income may have to be abandoned. The more serious threats arise from the unknown. These are either in the hands of governments or are largely beyond human control. As in the case of droughts, floods and earthquakes.

The role of is government policies which facilitate growth are vital to ensure sustainable development. Increasingly, governments have to respond to the pressures of higher levels of environmental degradation and to overcome the national and trans-border externalities which are associated with private economic behavior. From the point of view of sustainable development, governments have an even greater responsibility. (Scott, 1999) reminds us that wars and civil unrest pose at least as severe a threat to economic development as do current environmental preoccupations. In addition to their devastating short-run impact, wars have severe long-run environmental consequences, as may be witnessed in their continued toxic and radioactive fallout. Nuclear, chemical, bio-chemical and other power-generating, industrial and military facilities continue to pose a severe threat. While this has been recognized for many years, so that its articulation no longer appears intellectually exciting or innovative, it is important to remember that these older concerns remain the major cause of instability and risk and, as such, the major threat to sustainable development.

Also, government action and intergovernmental coordination will be necessary to meet these challenges but, have remained elusive. Indeed the failure to measure and define the global maintenance requirements stands in marked contrast to the various threats be environmental degradation. According to (Dasgupta, 2003), defines the valuation of environmental accounting prices in terms of the sum of their use value and their option value. The use value captures the value of environmental resources as inputs into the production of traceable goods and household production.

#### 6. DOMESTIC POLICIES FOR SUSTAINABLE GROWTH

The paper address the conceptual and broad analytic issues associated with the economics of sustainable development, to provide two concrete example of how sustainability concerns may be addressed at the country level. In some countries particular in African countries and Middle East countries have seen a fixed constrain which affected the development process such as water shortage sharply attenuating their development process.

For these countries, sustainable development requires the putting in place of alternative policies for water production and allocation. The differential effects of direct and indirect policies to influence water use patterns, including changes in water prices and international trade reforms. The results indicate that there is considerable scope for substitution between the two sets of policies and that a combination of economy-wide and direct

economic may ensure that water use is compatible with sustainable economic growth.

# 7. INTERNATIONAL POLICIES FOR SUSTAINABLE GROWTH AND COORDINATION

In a world transitional or global pollution, the optimal protection of the environment requires an international, and sometimes a global, coordination requires an international, and sometimes a global, coordination of emission control policies. Hence the analysis of sustainable growth, and of the related optimal environment, must take into account the international dimension of the environment. Define as 'sustainable' a growth path which accounts for the various functions of environmental resources (in production and consumption). Even if all countries solve the intertemporal optimization problem, and define a domestic emission path which can ensure the environmental sustainability of economy growth, the existence of transitional and global externalities leads to a suboptimal outcome through various forms of free-riding behavior.

On the one hand, the global effects of some forms of pollution jeopardize the unilateral attempts at reducing emissions; on the other, the appropriatability of a cleaner global environment by all countries provides an incentive not to join global environmental agreements, undermining the attempts at cooperation through free-riding. Hence the need for international coordination, (Barret, 1992).

In principle, the required coordination of emission could be obtained through a set of global regulations, implementing an optimal management of emissions. However, in the existing institutional setting, there is no authority which can impose supranational environmental policies, and emission coordination has to be obtained through voluntary agreements among sovereign countries, (Heal, 2005).

In the real world, a large number of international environmental agreements are currently in force. The recent ones, in particular, seem to share some feature: they usually involve only a subgroup of the countries as signatories, partial cooperation, and they tend to use other policy instruments, such as development aid or technologies cooperation, as a key instrument for increasing the number of signatories. The literature on the protection of the international environment is still trying to grasp the characteristics of the international agreements, in order to analyze their

inner structure new agreements implementing a suitable coordination of environmental policies.

#### 8. SUSTAINABILITY AND POLICY IMPLICATION

if we take 'sustainability' to mean achievement of steady state in the environment, we can conclude that the ever-rising flow of pollution is not sustainable since the flow of pollution that the world is able to break down must be fine. By definition, total world pollution is the product of the world's average per capita pollution and world population. Consequently, sustainability require that the sum of population growth of the average per capita pollution coefficient be zero (or at least approach zero at the sufficiently rapid rate). The demographic and ecologic transitions help us to focus more closely on how the non-rising flow of pollution can be achieved. In terms of the demographic transition, sustainability requires that the entire world's population get past the second stage of the demographic transition into the few-births-few-deaths stage. In terms of the ecologic transition, sustainability requires that all countries get to the point where abatement offsets incipient pollution.

There is little doubt that government policy can curtail per capita pollution. Many policies-such as the introduction of unleaded petrol- curb per capita pollution quite directly. Others, such as taxes on fuels and automobiles, do so less directly, but just as effectively. For most countries and most industries, stricter environment standard imply an increase in costs. Thus, each government is faced with a tradeoff between stimulate economic activity and curbing pollution. Historically, richer countries tend to opt for higher environment standards. This has forced firms based in rich countries to develop abatement technologies such as catalytic converters and smoke scrubbers. The fact that such technologies are subject to the usual increasing returns of information intensive industries —large fixed costs of Research and Development with low marginal costs of production- suggests that international transmission of abatement technology should play a role decreasing global pollution.

### 9. ECONOMIC INDICATORS

For many economists, working from within the neo-classic paradigm, sustainable development offers the opportunity to extent their methods to address serious environmental issues. Several methods have devised to alter national accounts to ensure that environmental concerns are included in any calculation of sustainable development. For some economists simple

alteration of the Gross National Product are seen as administratively efficient, but such a view does not necessarily imply that marginal adjustments to Gross National Product would actually result in the implication of conservation methods to the real world. More sophisticated analyses are obviously required and these include alternation of the national accounts or new measures of sustainable development being devised. The alteration of national accounts can take one of two forms. First, the actual quantities of material resources are placed into a statically appendix of the national accounts, as in Norway. Alternatively, monetary measures are used to estimate the use of resources, including environmental conservation measures, to alter Gross National Product onto a sustainable path. It should be noted that the use of money to combine the world of ecology to that of economics is not without its critics or methodological problems. Many critics of using money as a measure feel that it is an inappropriate way of measuring the value of the environment.

Unfortunately, to date, the critics have been unable to provide a better measure at least in the eyes of economists. If money is used as a measure of sustainable development then some very difficult methodology problem has to be overcome. These include the correct evaluation for non-market goods as well as the delicate task of deciding when the use of money is inappropriate for conserving natural capital.

Within the field of environmental economics, it is widely recognized that the goal of sustainable development is principally equity, rather than efficiency, issue (Howarth and Norgaad, 1992). That is, achieving sustainable development involves achieving equity both within generations (interrogational equity) and across generations (intra-generational equity). As Asheim (1991) put is;

"Sustainable development is a requirement to our generation to manage the resource base such that the average quality of life we ensure ourselves can potentially be shared by all future generations".

## 10. RECOMMENDATIONS

1-Many of the world's poor, condemned to eking out a living in already degraded ecosystems and environments, find their own lives and landscapes subject to further strains. The ethical problems confronting people faced with a stark choice of survival or further damage to the environment, often results in the latter being further eroded. Hence, a vicious cycle of environmental degradation established which is extremely difficult to break

and later into a sustainable from of development. The resolution to this problem brings is several ethical and political issues. These issues include questions over population control, resource allocation between and within generations as well as major political issues on the re-negotiation of world trade and international debt.

2-basic research on many of the critical thresholds beyond which damage to individual species in an ecosystem will occur is poorly understood. It is known that the duration of exposure to specific pollutants can adversely affect plant and animal growth and reproduction.

3-This ethical dilemma is even more acute in the case of promoting sustainable development, many politicians, scientists, business organizations and members of the community feel that we should attempt to move our environmentally destructive market-based systems onto a sustainable trajectory, rather than continue to damage the life-support features of the planet. A transition to a sustainable way of life means taking steps now to reduce the risk of serious environmental damage and related socio-economic problems.

4-Many environmental problems raise ethical issues. In the case of enhanced Greenhouse Effect, for example, environmental scientists and mangers are placed in a difficult dilemma of acting now, on the basis of some theory, to prevent the environmental problem from becoming worse and possibly unmanageable, or waiting to see if the theory is confirmed empirically and then perhaps finding that the environmental system has further deteriorated and is locked into an unmanageable trajectory.

5-Clearly, these environmentally damaging activities in both the developed and developing world are increasingly straining the poorest members of societies, the resources-base and assimilative capacities of the ecosphere. Many nations now acknowledge that it is imperative to alter these problems raise trajectories of development concerning the appropriate scale of intervention, the best methods to be used, and the political will carry out any proposed alterations to essentially unsustainable activities.

6-Many of the environmental problems that confront us are global in scale and require international co-operation for their solution. The international agreement, such as the Montreal protocol to eliminate the production of Chlorofluorocarbon, CFC is a welcome reminder that occasionally the international community can agree to act in a concerted way.

7- At national and sub-national levels some environmental problems can be resolved by the policy levers. For example, the normal use of legislation concerning environmental equity indicators; economic incentives to make production, distribution and consumption more efficient and therefore less wasteful of resources; land-use zoning, and other forms of planning which can help to protect some aspects of the environment.

### 11. CONCLUSION

A number of themes have emerged. First, while it is important to assess and provide for maintenance costs in the world economy, these do not appear to be unduly high. In most cases minor changes in technique of production or life-style seen likely to be sufficient to preserve options for future generations, and the total cost should be equivalent to a reduction in GDP of no more than a few percent. There is no reason to believe that long —run economic growth could even be enhanced as new technologies are explored. Overall economic growth and development are perfectly consistent with environmental protection, as is trade liberalization.

The importance of prices and incentives in pursing environmental objectives, They stress, however, that is will be up to governments to initiate policy changes and that there will be increasing pressure for them to do so. Both in channeling that pressure constructively and in intergovernmental al relations political economy and institutional design will be important factors. by understanding the ways in which players interact we should be able to avoid creating the poor institutions that generate poor policy.

More research will be needed to provide greater precision to the relationship between economic policies and sustainable development. In highlighting a number of the crucial linkages this paper indicates the breath and significance of the economy-wide dimension to environmental management. Public demand has placed sustainability at the top of the political agenda, but the economics profession has generally been slow to respond. Reveals the frontier and provides a point of departure for future analysis. It is hoped that it will provide the basis for a lively debate and stimulate further research in order to advance our understanding of the economics of sustainable development.

## 12. REFERENCES

Asheim, G.B. (1991) Defining Sustainability When Resource Management Does not Have Deterministic Consequences. Department of Economics, University of Oslo

Baldwin, R. (1998 the Economics of Sustainable Development, Centre for Economic Policy Cambridge University Press

Barrett, S. (1992) "The Paradox of International environmental Agreement" London Business school, London mimeo

Daly, H. (2002) 'Toward Some Operational Principle of Sustainable Development 'Ecological Economics, Cambridge University Press

Heal, G. (1993) "International Negotiations on Emission Control" in C. Carraro, Dordrecht; Kluwer Academic

Dasgupta, P. and Heal, G.M. (1979) Economic Theory and Exhaustible Resources, Cambridge: Cambridge University

Dasgupta, P. (2003) 'Optimal Development and the idea of Net national product' Cambridge University press

Goodland, R. (1992) population, technology and lifestyle, Washington, D. C. Island Press

Goodland, R. and Daly, H.E. (2003) 'Why Northern Growth is not the Solution' population technology and lifestyle Washington, D.C. Island press

Grossman, G.M. and Krueger, A.B. (1993) 'Economic growth and the environment', Princeton University, Forthcoming

Howarth, R., and Norgaad, R, (1992) Environment Valuation under Sustainable Development IUCN Press, London

Heal, G.M. (2005) The Theory of Economic Planning, Amsterdam, North-Holland MacNeill. J. (1989) 'Strategies for Sustainable Economic Development' Scientific American New York

Norgaad, R, and Howarth, R. (1991) 'Sustainability and Discounting the Future" in R, Costanza Ecological economics, New York Columbia university Press

Pearce, D. W, and Turner, G. (1990) The Secondary Benefits of Greenhouse Gas control, Working Paper 92-91 London, GSERGE

Scott, M. (1999) What Sustain Economic Development, Centre for Economic Policy, Cambridge University Press

World Resources Institute (1990) World Resources 1990-1991. New York and London; oxford University Press