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# Sustainable and optimal development concepts to mitigate deterioration of natural environment

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This article looks at the controversy surrounding the concepts of sustainable and optimal development and the path the present generation is taking, to reduce the deteriorating of the natural environment. The World Commission of Environment and Development (WCED 1987) defined sustainable development as development that meets the needs of the present generation without compromising the ability of the future generation to meet their own needs. In other words, it is development based on patterns of production and consumption that can be pursued into the future without degrading the human or natural environment. It involves the equitable sharing of the benefits of economic activity across all sections of society, to enhance the well-being of humans, protect health and alleviate poverty. Despite the wide publicity, the present generation seems not to catch up with the ideas and philosophy of the concept. Rather optimal development, development in totality that compromises the ability of the future generation to meet their own needs, is seen to be adopted in achieving the present economic agenda, both in developed and developing countries. The aim of this article is to examine the contradiction of both concepts and the extent to which the present generation has chosen as far as both concepts are concerned and its long term effects on the future generation. The article then concludes with special reference to the Ghanaian initiative towards sustainable development.

**Key words:** sustainable developments, optimal development, present generation, future generation

## INTRODUCTION

Sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED, 1987). The definition is in line with Zundeau (2005) who came out that development cannot be sustainable unless current developmental agenda do not harm the interests of future generations. Despite the wide publicity of the concept, it is argued that the term is seen as political consensus which does not have any significant effect on the way human beings interact with the environment. Sustainable development is seen by many as a laudable idea, yet the definitions and interpretations, according to Jahnke and Nutzinger (2003) leave room for too many concrete definitions and definitions so vague that the concept loses its connections to real problems. The present day societal needs and economic hardship experienced both in the developed and developing countries drives people to go in for activities that tends to degrade the natural

environment (Foster, 2002). Optimal development is the order of the day where society overexploits the environment to satisfy the immediate needs thereby compromising the ability of the future generation to meet their own needs as well. The issue at stake is the path the present generation is taking, either sustainable or optimal development, in achieving local, regional and global economic and social challenges. This is where this article is situated.

## Aim

This article will focus on the concepts of both sustainable and optimal development and the path of the present generation with special reference to Ghana. The aim of this work is to make a general overview of the concepts, their definitions and the choice the present generation is making as they proceed with their developmental agenda.

## METHODOLOGY

The study made use of secondary data sourced from the internet, library, books and publications from Ghana government agencies such as the Ghana Statistical Service and the Environmental Protection Agency. Secondary data collected were then triangulated with the views and opinions of selected students from the Faculty of Integrated Development Studies of the University for Development Studies, Wa Campus of the Upper West Region of Ghana.

## RESULTS AND DISCUSSION

### Sustainable development

During the 1980s, the perception of sustainable use of resources attracted global attention as that of limits to growth had earlier done in the 1970s. It is interesting to note that since its inception in the 1980s, much has been written on the subject and numerous distinctions of varying degrees have been drawn between terms such as sustainable use, sustainable growth, sustainable development and sustainability; (World Bank 2002; MacKerron and Mourato, 2008). This article considers these terminologies as synonymous and as such they are used interchangeably.

The concept of sustainability originated from the 1980 World Conservation Strategy of the International Union for the Conservation of Nature and Natural Resources (IUCN et al, 1980). They tried to define sustainability as a strategic approach to the integration of conservation and development consistent with the objectives of ecosystem maintenance, the preservation of genetic diversity and the sustainable utilization of resources. The authors argued in favor of conservation as positive, embracing preservation, maintenance, sustainable utilization, restoration and enhancement of the natural environment. According to Buckingham, 2007 and Munier, 2005 sustainability involves maintenance of essential ecological processes and life support systems, preservation of genetic diversity and sustainable utilization of species and ecosystem. Attempts was not made, however, to come out with a clear cut definition of sustainable development but rather openly acknowledge distributional issues (Anderberg et al. 2000). The concept of eco-development initially proposed by the UNEP (Blewitt, 2008) followed suit and concerned with conserving renewable natural resources and controlling the discharge of waste products. Though related to the later concept of sustainable development, it became associated with radicalism and was consequently overshadowed by the sustainable development concept. The concept of sustainable development was promoted by the World Commission on Environment and Development, established in 1983 by the United Nations. The Commission was mandated to examine critically

environmental and developmental issues, to formulate proposals for dealing with them and to propose new forms of international cooperation; (WCED, 1987).

The agenda of the Commission was to bring into bear the assurance that some measures of human well-being and development are sustained in the present and future generation (Blewitt, 2008). Fundamental to this assertion to economic development is the requirement that any decisions made now by the present generation to the natural environment and the bountiful natural resources are likely to impair the well-being of the future generation either positively or negatively (Munier, 2005 and Ekins et al 2008). Sustainable development, as noted by the Commission, calls for holistic approach by all stakeholders with environmental concern that should include an alternative ecology of the mind-value systems, norms, attitudes, life-styles, institutional structures and models of socio-political organisation. It requires meeting the basic needs of all and extending to all the opportunity to fulfill their aspirations for a better life (WCED, 1987).

The concept in Agenda 21 of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 captures human "needs" not only economic but also needs for a clean environment (Ekins et al. 2008). The concept implies that the next generation should be secured opportunities similar to those available to the present generation with emphasis on equity that applies both across and within countries. (Munier 2005).

Sustainable development is not just about the environment, but about the economy and our society (Munier, 2005; Partridge, 2005 and Chan and Lee 2008). The principles of sustainable development encourage the conservation and preservation of natural resources and of the environment, management of energy, waste and transportation. It is development based on patterns of production and consumption that can be pursued into the future without degrading the human or natural environment and involves the equitable sharing of the benefits of economic activity across all sections of society, to enhance the well-being of humans, protect health and alleviate poverty. If sustainable development is to be successful, the attitudes of individuals as well as governments with regard to our current lifestyles needs to change. Unfortunately the present generation have failed in accepting intergenerational equity as an overriding ethic, hence the deterioration of the natural environment (Partridge, 2005).

It is disturbing to note that after almost 40 years of Stockholm on Human Development and 20 years after Rio's Summit on Environment and Development, it is still not possible to describe the state of the world environment comprehensively or to say with confidence that Governments of the world have the political will to deal effectively with the global environmental problems which we already know exist (Agyemang et al, 2007). The writer questions the path the present generation is

taking to address its economic challenges be it sustainable development where conscious efforts are being made to meet the present needs as well as that of the future generation or optimal development where development is done at the expense of the future generation

There is no doubt that the numerous environmental challenges currently faced globally, are the results of the present generation aggressiveness towards the use of natural resources for economic pursuit (Agyemang et al, 2007). This is evidence in the passive mood of the present generation attitude towards maintaining environmental quality. Little has been done as far as international cooperation is concerned to deal with the issues of trans-boundary and global pollution of the atmosphere. The present generation lack commitment to improve knowledge and management of fresh water resources, realistic program of corrective action and rehabilitation in land already subject to desertification.

Currently, there is no urgent need to halt and reverse the pattern of deforestation and habitat loss in all regions more especially in developing countries in Africa and the Amazon regions of South America. If what Dieter Frisch (Former Director General of Development. Commission of the European Community) said was to be taken seriously that “we have not inherited the environment from our parents, we are borrowing it from our children” then this present generation have contradicted the terms of both sustainable and optimal development (Daily Graphic, 2010).

Governments and international institutions have failed to translate their rhetorical commitment for sustainable development into meaningful action (Elliott, 1994). They have accepted the concept in principle but in reality they have engaged in other path consciously or unconsciously and that path is optimal development. Ironically, we talk more about a concept we all do not believe in and less on the concept we have adopted in this current era of global economic development (Agyemang, 2010). What is optimal development and what has led this present generation to catch up with it. That is the subsequent discussion.

### **Optimal development**

The concept of emerging interest shows that not much has been documented on optimal development for fear of being associated with anti-environmentalist. Most literature have focused mainly on sustainable development since 1992 after the Earth Summit at Rio.

Optimal, in the context of this article, simply means „maximum“. Optimal development is defined as that path of economic development which makes potential human well-being as large as possible (Agyemang, 2010). It connotes the maximum exploitation of the natural capital stock to improve the present human well-being by compromising the choice and taste of the unborn

generation. With the current population growth and the need to satisfy human needs, the concept of optimal development seems to be very attractive to many countries worldwide; (Ross, 2007).

The writer is of the view that Optimal development is development that compromises the ability of the future generation to meet their own needs. In other words, what is a resource for the present generation may not be a resource for tomorrow’s generation and is assumed that unused resources today, with the future generation in mind, may be wasted; (Sisay, 2005). What this means is that the taste of the present generation might not necessarily be the taste of the future generation and that the future generation may not use the resources that are adorned and cherished by the present generation for their developmental efforts. Gold, diamond, bauxite, timber and iron, to mention a few, which are resources for present generation, might not be useful for tomorrow’s generation.

It seems logical to assert that the present generation cannot determine the taste of the future generation and therefore there is no need for the present to forego their developmental agenda with the future generation in mind (Jahnke and Nutzinger, 2003). Optimal development presupposes that if there are no significant problems being passed on to future generations, then there is little point in pursuing sustainable development in so far as it addresses the concern about equity in distribution between generations. What they sought to address is the need for intra generational equity as opposed to inter generational equity; (Zundeau, 2005).

Optimal development is concerned primarily on poverty (Lisa, 2007) in the south where people live less than a dollar per day, where children are malnourished, and where there is exponential increase in mortality rate, just to mention a few (Alexandra and Neil 2007). The concern is about eradicating global economic injustice and poverty now and not about the supposed poverty and injustice of the generations to come, especially if we are to believe that concern for the future generations actually impedes development for the poor now; (Matthew, 2007).

Supporters of optimal development argued that the immediate past generation compromised this present generation whilst trying to meet their developmental needs. Past generations pursued their economic agenda to the fullest with less regard to the present generation yet one can confidently say that this present generation is far better off, in terms of economic growth and standard of living, than the past generation as more resources are being created to satisfy their needs and wants (Agyemang, et al. 2007). It is therefore of no use thinking ahead of our future generation as they might be better off than the present generation.

Optimal development is likened by the present generation, both developed and developing countries (WCED, 1987). It is related to the popular slogan “actions speak more than words”. Our Human attitudes, actions,

and developmental goals all point to the direction of optimal development, yet little is being discussed or argued on the path taken. Is it not true that the current generation is pre-occupied with economic growth as engine of development? Is not true that the present generation is exploiting the natural resources far beyond its carrying capacity? Is it not a fact that this present generation is producing and dumping waste like never before? The next sub-section discusses the issue of the present generation and the pre-occupation of growth economic model championed by the capitalist mode of production (Mikhail, 2006).

### **The Present Generation and Economic Growth**

The writer suggests that the present generation have not realize that human wants are always unlimited but resources needed to produce goods and services to satisfy these wants are limited. The economic path taken by the present generation is in no doubt unsustainable (WCED, 1987). Yet the argument put forward is that the economy must grow to feed the growing population or to satisfy basic human needs as already pointed out in the previous section. The present generation and the pre-occupation of economic growth are captured vividly within the capitalist mode of production which depends on the continued raising of productivity to improve standard of living (Elliott 1994).

The impact on the natural environment, manifested in private ownership of resources, the need to maximize profits and competition within a free economy, is now realized in many parts of the world, both developed and developing countries (Munier, 2005). The exploitation of environmental resources without sufficient concern for the long-term conservation of natural resources is ample evidence of the negative impacts of the capitalist mode of economic production. Kirdar (1992), indicated that about 95% of the total global carbon dioxide in the atmosphere is at present caused by the combustion of fossil fuel, consumed mostly by the industrialized countries. It is estimated that this consumption, of 2 billion tons per annum, may rise to 10 billion tons during the present millennium.

The author may conclude that the capitalist mode of production is a clear example of society opting for optimal development. Many commentators have suggested that environmental destruction was inevitable under capitalism, but that centrally planned economies, as the socialist, would serve the interests of environmental protection better (Ekins 2008).

Another issue of interest concerning this present generation and the pre-occupation of economic productive growth is the controversy of sustainable development in developed and developing countries. Whilst the developed countries are arguing that

developing countries should modify their economic activities to avoid input related environmental problems such as destruction of the rain forest of global value, the leaders of developing countries believe that citizens have the right to have basic needs met, and that they should not be told not to do what all the developed countries did to achieve their high level of economic development (Ekins 2008). According to Mitchell (1997), during the Earth Summit in Rio de Janeiro (1992), many disagreements were based on the interpretation between developed and developing countries regarding what sustainable development should mean.

Inherently, the present generation seems to be confused. Humans have come to the realization that their actions are unsustainable and that things seem to go in the wrong directions. The environment is being degraded and the effects are being observed now (WCED, 1987). It seems the present generation is deceiving themselves and not the future generation. The next sub-section discusses the challenges faced by this present generation as they found themselves in a scarcity puzzle which states that the abundance of goods and services by this generation will amount to nothing if after attaining those noble goals, the environment is destroyed.

### **The Present Generation and Global Developmental Challenges**

The present generation, despite their pre-occupation of maximizing output to satisfy their needs, have also come to the realization that the environment cannot cope with the present developmental agenda. The stand of the present generation, in principle, is that development can only occur if and only if there is recognition to sustain and expand the environmental resource base (Anderberg et al. 2000).

Through many environmental conventions and conferences, the present generation have realized the following issues as prerequisite in combating global environmental problems protection of the atmosphere, combating climate change, prevention the depletion of the ozone layer and trans-boundary air pollution, managing hazardous chemicals, prevention of illegal international trafficking of toxic products and wastes, the protection of fresh water resources, combating desertification, drought and deforestation especially in developing countries, the protection of the seas and oceans, conservation of biological diversity, and the eradication of poverty and improvement of the living and working environment of the poor in urban slums and rural areas (Albert, 2006)

The predicament of the present generation, however, is not the realization of the global environmental problems associated with their developmental agenda but commitment to halt the problems confronting humans such as commitment to concrete policy actions to translate the growing awareness of close relation

between the issues of economic growth, poverty and environment to reality. There are , inadequate measures to alert effective policy-makers and, in developing countries, effective monitoring and enforcement to effect change in the present trends and causes of serious environmental deterioration (WCED, 1987).

### **The Future Generation and Economic Development**

One of the main concerns of the World Commission on Environment and Development (WCED, 1987) had been the wise use of resources of this present generation to the advantage of the future generation. However, the philosophy of optimal development rejects preserving resources for the future generation as resources are defined by nature and not by man and what are resources today may not be resources tomorrow (Zimmermann, 1951). The present generation lack the capability to think ahead and know what the future generation might determine to be their potential resources. The present generation have turned so many things which were hitherto was not resources to potential resources. Humans have gone through various manufacturing processes to satisfy the needs and wants of the present generation. Gold, diamond, timber, fossil fuel, to mention a few a natural resources widely used by this present generation that might not be of use to the future generation. Advocate of optimal development suggest maximum utilization of the present generation have placed value on them. The present generation therefore has the moral right to consume everything as there are options for the future generations (Agyemang, et al. 2007) Optimal development or sustainable development is therefore seen at the periphery of conflict of value judgments reinforced by differences in belief about just how serious the threats are to future well-being from actions by today's generation and the lack to think for the future generation concerning their taste and preferences as far as environmental amenities are concern.

This present generation seems to be biased towards sustainable development yet our actions and attitude portrays the shift to optimal development. We talk more and do little as far as environmental degradation and resource depletion is concern (Munier, 2005). The present generation has to answer. When face with such a dilemma, it is always better to err in the side of caution (Bell and Morse, 2006) which unfortunately is not the direction of the present generation.

### **Ghanaian initiative towards sustainable development**

Ghana is located on the West African gulf of Guinea only a few degrees north of the equator with a total area of 238,540 km<sup>2</sup>. The country is bordered on the west by Cote d'Ivoire, on the north by Burkina Faso, on the east by Togo and on the south by the Atlantic Ocean. The

climate is tropical, warm and comparatively dry along the southeast coast, hot and humid in the southwest but hot and dry in the north. Ghana's population is spread unevenly across the 10 administrative regions, which are further divided into 138 districts. The population of Ghana has tripled since independence from about 6 million to an estimated 22 million with a growth rate of 2.05 per year (GSS, 2010).

Ghana environmental policy before independence relied heavily on the European models as the major development strategy, with attention on urban industrialization and rejected indigenous life-styles in favor of modern systems. The strategy led to adverse environmental impacts and endangered the very basis on which sustainability of development depends. Ghana created the Environmental Protection Council in 1973, enacted the PNDCL 116 of 1985 and PNDCL 207 of 1988 which make the district assemblies responsible for human settlements and the environment in the districts and empowers the districts assemblies to monitor the execution projects under approved development plans and evaluate their impacts on the people (EPA, 1991). Despite the establishment of EPC in 1973 and its adoption of foreign environmental strategies, there was no formal environmental assessment procedure in Ghana until 1995. In 1988, Ghana established its Environmental Action Plan. The establishment of the plan coincided with the start of the second phase of the Ghana's structural adjustment policy that placed emphasis on the explanation of agriculture, forestry, mining and manufacturing. The Constitution of the 4th Republic, which came into force on 7th January 1993, is the fundamental law of Ghana and provides the basis from which all other laws are derived. Article 36(9) on directive principles of state policy has a provision on the Environment, which states: "The State shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind". The foregoing therefore forms the basis on which the Government initiates policy actions and legislation to promote sound environmental protection and management. It is important to note however that Ghana's Environmental Policy is the result of a series of Government actions initiated in March 1988 to put environmental issues on the priority agenda (EPA, 1995).

Subsequent to this, an Environmental Action Plan (EAP) was drawn up which identified specific actions to be carried out to protect the environment and ensure better management of natural resources (EPA, 1995-2003). The plan addresses itself to sustainable development issues as defined by the World Commission on Environment and Development in 1987 and provides a broad framework for the integration of environmental issues into development strategies and actions. The National Environmental Policy (NEP) was adopted in

1991 to provide the framework for the implementation of the National Environmental Action Plan (NEAP). The ultimate aim of the policy is to ensure sound management of the environment and the avoidance of exploitation of resources in ways that may result in irreparable damage to the environment. The policy makes provision for: maintenance of ecosystem and ecological processes essential for the functioning of the biosphere; sound management of natural resources and the environment; protection of humans, animals and plants and their habitat; guidance for healthy environmental practices in the national development effort; integration of environmental considerations in sectoral, structural and socio-economic planning at all levels; seek common solutions to environmental problems in West Africa, Africa and the world at large (EPA, 1995-2003). NEP has been made functional through the preparation of a 10-year National Environmental Action Plan (NEAP) which in turn has been operationalized via the Ghana Environmental Resource Management Project. The approach is to enable the country to rationalize the use of its scarce resources while laying the foundation for sound environmental management

Ghana is using the "bottom-up" approach towards its environmental management. District Assemblies have been asked to be the organ through which national policies and programs on the environment are translated into action at the local and district levels. District Environmental Management Committees of the District Assemblies receive technical assistance to monitor and coordinate environmental protection and improve activities in the district. Ghana is using the „consultative approach" towards the formulation of environmental policy guidelines and regulations for the mineral sector. This approach has found favor with industry and the public. The country has also adopted an integrated approach towards environmental management of its resources. The environmental management of the country's resources are based on policy formulation, planning, legislation, institutional capacity-building, monitoring/evaluation and problem solving and implementation of decisions by the highest level of government, sectoral agencies, district assemblies, and by traditional and other community authorities. With these policies being implemented by the government of Ghana to safeguard the country from environmental degradation and resource depletion there are still challenges to be tackled in areas such as deforestation, water pollution with regard to mining areas and the advancement of the Sahara in the northern region. Who are to be blamed for these challenges This is time for paradigm shift for Ghanaians and decide which developmental path-sustainable or optimal?

## CONCLUDING REMARKS

The author strongly believe that the present generation is

for sustainable development considering the environment collective strategic policies. Much has to be done by the governments and environmental institutions and the multilateral organizations. The path of sustainable development seems to be the right path for the present generation. All stakeholders need to work together to achieve maximum benefits for both the present and future generations.

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