

## **ECONOMIC DEVELOPMENT VERSUS SUSTAINABLE DEVELOPMENT**

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### **Abstract**

*The paper put in antithesis, theoretically, two models of development and evolution of mankind, namely, economic development based on consumption of the exhaustible resources and pollution and on the other hand the development based on the concepts of sustainable development, involving a new mentality on human life and environment. Economic development includes economic growth, quantified in particular through the GDP, aspect that leads to a reduced analysis taking into account a limited number of variables such as household income, employment labour, consumption of goods and services, etc.. Perpetuation of this model has led, over time, to the company's inability to solve the problems facing mankind today and serious discrepancies regarding current levels of human development. This type of model does not take into account variables such as unemployment, poverty, education, health, environmental pollution, population migration, urban overcrowding, social inclusion etc. At the opposite side of this type of development, which proves to be beyond the crowd problems currently facing humanity, is a new alternative model, that of sustainable development, which provides an integrated view of all these variables and hence the chance of the human society to a new level of evolution. The sustainable development model of mankind put, among others, the zero growth issue or even sustained decrease for some countries. This model requires also reducing resource consumption and increase sustainability of assets created. It also offers practical solutions to many current problems of mankind, among which we can mention providing food for a growing world population and producing clean alternative energy.*

**Key words:** *economic growth, economic development, sustainable development, zero growth, sustained decrease, vicious circle of underdevelopment*

**JEL Classification:** *O10, Q01, Q56, Q57*

### **I. INTRODUCTION**

Sustainable development requires a new integrative approach combining economic theory with the study of natural sciences. The need of a new multidisciplinary concept has the gift of smoothing the rigid boundaries between different current science, creating the premises of a global view of all economic, social and environmental phenomena, within a homogeneous set in which all interact with each other.

There are many discussions about sustainable development. The concept emerged in the '80s as an attempt to create a bridge between economic progress, involving consumption of raw materials and finding ways to save these resources and eliminate pollution factors.

Sustainable development combines all these three economic, social and environmental components, while focusing on the human, on the cultural and social dimension, on technical and scientific progress, however many understood in their interrelationships and, in time, generating a higher level of development embodied in the concept of sustainable development.

### **II. ECONOMIC GROWTH - ECONOMIC DEVELOPMENT RELATIONSHIP**

In the context of the current global economic development necessarily arises the problem of growth and economic development of countries around the world. Romania is part of the international economic cycle and, as such, the problem of economic development is both a goal and a key objective of our country.

Achieving high rates of economic growth is one of the four main objectives of macroeconomic policy. Importance of growth lies in its contribution to the general prosperity of the community. Economic growth is necessary because it allows the community to consume more goods and services and also helps to ensure a larger quantity of goods and services (health, education etc.), leading to real improvement in life standards. However,

accelerated economic growth can lead to depletion of natural resources and worsening of environmental pollution problems.

According to the French economist François Perroux (Perroux, 1981) growth means increasing the size of the national economy expressed by all goods and services produced in a given period, including depreciation. However, consider Perroux, only long-term quantitative growth is being interpreted as growth, while the short-term growth it is seen like expansion.

In Kuznets view, growth is mainly a quantitative phenomenon defined as sustainable growth of population and gross domestic product (Kuznets, 1972) while Samuelson considers economic growth as "production expansion or GDP growth of a country" (Samuelson and Nordhaus, 2000), while other researchers characterize it as "an increase in the production capacity of countries, identified by a sustained increase in real national income over several years" (Hardwick et al, 2002).

From a social-human perspective, development is "a category designating a complex motion oriented, irreversible, developed in general and ultimately on an ascending line from the lower to higher, from old to new. It is made with endless succession of changes, quantitative accumulation, evolution and revolution, progress and regress, forming sides, inseparable aspects of development, being an indissoluble unity" (Small encyclopaedic dictionary, 1978).

Perroux said in turn that the development is a combination of mental and social exchanges of a population that are cumulatively increase its global and sustainable real product (Perroux, 1969), and the Austrian economist Schumpeter said about economic development that it is a process of creative destruction that continually revolutionizes the economic structure from within, continuously removing old items and continually creating new elements (Schumpeter, 1974).

Economic development has a much broader framework than growth and it involves "a set of transformations that alter behaviour, integrates knowledge advances, improvements to labour skills, industry knowledge, influencing expectations and stimulating accumulation. It is a complex process that combines economic issues with the sociological, psychological and political aspects of human life and society. Development goes far beyond simple economic performance" (Ignat et al, 2002). Therefore, economic development includes economic growth. There may be economic growth without development, but the inverse relationship is not valid.

Over time, the economic development was addressed by quantifying macroeconomic indicators, most often through GDP per capita or per economy, which limits the analysis, most often at economic growth, with beneficial effects on population by increasing employment rate, household income and thus consumption of goods and services. But this perspective, this incomplete vision of human life and activity eliminated urgent and real human problems, and because they were not taken into consideration, not only that they were not solved in time, but rather have widened and created repercussions on other variables of development. Thus, variables such as poverty, explosive population growth, environmental pollution, urban overcrowding, health, education, resource management approach require a new vision of human society development.

### **III. SUSTAINABLE DEVELOPMENT – A REQUIRED MODEL FOR GROWTH AND DEVELOPMENT**

After World War II the problem is the limits of economic growth, taking into account the accelerating population growth and consumption of non-renewable resources, with increasing incomes and living standards.

In 1972 at the Stockholm Conference on the Environment initiated by the U.S. and Scandinavia for the first time is presented the deterioration of the environment due to human activities, which endanger the future of the planet and it is emphasized that economic development is inextricably linked to social development if we are to ensure an environment conducive to human existence and creation of necessary conditions on the Earth to improve the quality of life. On this occasion the decision of establishing a UNO Environment Programme under the auspices of the United Nations General Assembly.

The oil crisis in 1973 which pull the alarm on the depletion of natural resources, many catastrophic of oil spill resulting in thousands of tons of oil into the seas and oceans, the discovery in 1985 of the hole in the ozone layer over Antarctica, Chernobyl nuclear catastrophe in 1986 and, more recently, the Fukushima catastrophe are sufficient and serious reasons for humanity to take action on the future of the planet and the species of the earth.

Following a resolution adopted by the General Assembly of the United Nations, in 1983 the World Commission on Environment and Development begins its work, chaired by Norwegian Prime Minister Gro. H. Brundtland who was in charge with development of the report on the environment. In 1985 the Vienna Convention is signed, which aims to find solutions to reduce production and consumption of harmful substances for protective ozone layer that surrounds the planet.

The report of the World Commission on Environment and Development in 1987, known as the Brundtland Report, presents six definitions of sustainable development, but the most cited of these, who became the leitmotif of international environmental policy, believes that "sustainable development is the ability of mankind to satisfy the people's today needs without compromising the chance for future generations to meet

their own needs "(Brundtland Report, 1987). Over time the concept has undergone many interpretations, so that, according to some authors (Dăduianu, 1997), there are over 60 definitions of sustainable development, aspect which fully proves that we are facing a very dynamic and complex concept encompassing many aspects of contemporary society.

World Commission finds then the need to change destructive lifestyle, especially in industrialized countries, by adopting concrete measures such as reducing the exploitation of raw materials and reducing energy, water, mineral products and other natural resources consumption. At the same time it requires global spread of eco-technologies, facilities purification, recycling techniques. On this occasion was expressly stated the interdependence between economic development and environmental protection.

The term sustainable development began, however, to be promoted and used increasingly often as a result of the Conference on Environment and Development in Rio de Janeiro in 1992, organized by the United Nations, known as the " Earth Summit", unprecedented event which brought together more than 100 heads of state, aiming to achieve a consistent program of sustainable development, which addressed global problems facing humanity. We should mention that the Declaration supports development while safeguarding the environment: "To achieve sustainable development, environmental protection shall constitute an integral part of the development process and can not be considered in isolation from it" (The United Nations Conference on Environment and Development, 1992), addressing the concept of sustainable development in view of "reconciliation between economy and environment, as a new development path to support human progress not only in some places and for some years, but for the planet and for future long" (Ibid).

The meeting resulted in the several conventions on climate change and the need to reduce emissions of methane and carbon dioxide due to economic activities, the use of technologies that do not generate toxic waste, biodiversity and endangered species protection, combating desertification, protecting forests, population growth, finding and using alternative energy sources.

Actions for sustainable development continued through the Kyoto Protocol in 1997, by which industrialized countries promised to cut emissions of greenhouse gases by 2012 in order to achieve the objective of stabilizing the concentration of atmospheric gases that contribute to the effect of emissions and the warming of the Earth, and in December 2012 States joined at the United Nations Convention on Climate Change in Doha, approved the extension of the Protocol by 2020. Also, the process of sustainable development is supported by multiple other conferences that have adopted strategies to implement Agenda 21 and also by the World Summit on Sustainable Development in 2002 in Johannesburg, where it has been ratified a treaty on conserving natural resources and biodiversity, and it has been promoted the transition from planning actions carried out in Rio, to the implementation of sustainable development, to the real and concrete actions, to finding sustainable models of development.

In a very comprehensive way, sustainable development marks a "new attitude towards the environment, changing the relationship between human and nature, in order to establish a new partnership between the two entities, balance and harmony between them" (Popescu et al, 2005).

Regarding Brundtland report on sustainable development concept and some authors are more sceptical about its implementation stating that "It is doubtful that a sustainable, global development can be achieved given that in industrialized countries the growth rate would increase with the speed suggested in the report. A sustainable society means a society based implicitly on a long-term vision, meaning that it must foresee the consequences of its various activities, so that they can break the cycle of renewal; must be a society of conservation and concern for future generations, should avoid the adoption of irreconcilable goals between them. It must be a society of social justice, because serious inequalities in property or rights will create destructive disharmonies. In other words, the concept is utopian, but it is worth fighting for "(King, Schneider, 1993).

In our opinion, we believe that satisfying all objectives is, at least for now, a utopian vision in terms of perpetuating the global economy principles and the interests of industrialized countries dictating the rules of the world. These countries do not want in any way the developing countries to catch up, contrary to the official statements.

#### **IV. THE ZERO GROWTH - SUSTAINED DECREASE ALTERNATIVE**

In the work *The Limits of Growth* published in the '70s, the authors (Meadows, Meadows, 1972) take a warning signal about the future of mankind, consumption, resource depletion and pollution. They argue that development and growth are limited by the natural environment, and they initiated a very extensive and detailed study on this area. For demonstration were considered five variables: population, industrial production, resources, agricultural production and environmental pollution. Conclusions of the report argued, inter alia, that in about 40 years there will be a major aggravation of the pollution problem, the continuous increase of supply will feed continuously the inflation, the diminishing of resources, all these leading to a decline in economic growth.

Also noteworthy for supporting the above statements is the fact that recovery development in developing countries in order to reach the level of industrialized countries would increase consumption and pollution and accelerate resource depletion, for which they propose the zero growth solution for all countries.

The report prompted criticism, particularly from economists that advocate the growth theory at any cost; they stating that it ignores the modern economic thinking and, therefore, is not realistic. Moreover, acceptance of the concept of growth limitation would generate significant social problems, particularly unemployment, with all the consequences derived from this. The solution of zero economic growth is not a viable solution but at the same time, is a model that "commits us to a new kind of growth, to a new mode of production and consumption, to a new way of seeing time and information" (Pohoată, 2003).

In turn, the American economist, Nicholas Georgescu-Roegen, born in Romania, questions in a new vision the development problem, one that must take into account the needs and the security of future generations, reflected in the decline in production, zero economic growth or even decrease, and correct understanding of the concept of development. Roegen turns out to be the first who questions the economic downturn in the midst of economic boom, anticipating serious environmental problems that humanity will be confronted at the beginning of the third millennium.

Far from the idea that man should give up the comfort of the industrial revolution, Nicholas Georgescu-Roegen has developed an action plan that would involve all countries, contained in the so - called "The minimal bio-economic program". In essence it comprises the following ideas:

- the necessity of wars cessation, which would allow the release of tremendous productive forces to help poor countries;
- the use of resources current non-renewable with great responsibility and avoiding unnecessary energy losses until the use of solar energy or any other alternative energy sources becomes a generalized process;
- the necessity for mankind to gradually reduce the population to the point where it will be fed only through the organic agriculture;
- the renunciation to change the car each year or to throw things that still can provide their services. This is a bio-economic murder. Goods must be manufactured with a high durability and must be easy to repair.

A possible solution as an alternative to the current model of growth may be the sustainable decrease that does not consist in negative growth. Sustained decrease represents a new vision of the development that consists of a series of objectives as solutions to the current growth exhausting resources. These are contained in the so-called Program of 6 R: review, restructuring, redeployment, reduction, reuse, recycling, issues that comprehensively define the concept of sustainable development.

From our perspective we believe that industrialized countries need to take measures for so-called zero growth or sustained decrease rather than less developed countries. The population of these countries produce more than is needed for a decent consumption, so that humanity is involved in a carousel of wastage of all resources in pursuit for a supposedly better life, actually forgetting that wastage is not the measure of increasing the living standards; practically, currently supply creates its own demand and not vice versa, as would be normal. "Thirty Glorious Years" of Keynes were an extravagant experience in human history, but apparently with a too high price to pay.

#### **V. AN ISSUE ON THE AGENDA OF SUSTAINABLE DEVELOPMENT: THE POVERTY AND ITS VICIOUS CIRCLE**

The experience of postcolonial period has proven that growth is not able to solve the problems facing the world's population, but rather the most part of them has increased over time. When we say these things we consider the global statistics that show evidence of the increasing gap between rich, industrialized countries and the poor or developing ones; these data show that we are, in fact, far away from sustainable economic development. Industrialized countries are accused of enriching themselves, largely at the expense of their former colonies, consuming their resources and now these less developed countries are hampered to come from behind and reduce the gap on the ground that it has been reached the limit of development.

In terms of world production, most developed countries have moved their production of heavy industry in South Asian countries - East and particularly in China, resulting in a column of smoke which extends up to 1700 km above the Pacific. This seems to us to be of a great treachery: if not pollute their own country, does not mean that they don't continue to pollute the planet and, in addition, exploits very cheap the workforce from this region of the globe.

It is also known the phenomenon of continued growth of external debt of developing member or of the poor countries on account of loans granted by international financial institutions to their disadvantage because the consequences: high interest to be repaid, rising prices rising inflation which finally lead to even more accentuated impoverishment of the population.

Many loans are granted knowing well that states are too poor to be able to repay the debt. We argue this statement with the following words: "World Bank Group can support emergency measures which helps the poor ... We will increase almost twice our lending for agriculture in Africa, from 450 million USD to 800 million

USD and we can help countries and farmers manage systemic risks such as drought. We provide access to science and technology to increase yields. Through the International Finance Corporation – IFC, a member of the World Bank Group dealing with the private sector, we will increase the investments and the support in the form of consultancy granted for agricultural operations in Africa and elsewhere" [15].

These statements drive us to the vicious circle of underdevelopment theory formulated by the economist Ragnar Nurkse. He believes that the main cause of poverty in the third world countries is the insufficiency existence of capital, which is derived precisely from their poverty, from the very low level of national income per capita. Nurkse argues that this vicious circle "involves a circular fascicle of forces acting and reacting upon one another in a manner that maintains a poor country in a state of poverty" (Nurkse, 1968).

The vicious cycle of poverty is viewed from two perspectives at the same time, both in terms of capital demand and capital supply. The insufficient development of the internal market due to low purchasing power causes reduced investment and a limited amount of capital used in production, leading therefore to a very low capital requirement. Second, supply the capital is reduced due to the low level of national income and hence low level of labour productivity. There is no internal capacity for savings that could lead to new investment for development.

Nurkse's theory is, in fact, a double vicious circle which is due to the absence of endowment with natural resources and low labour productivity.

In our opinion, the international financial institutions and industrialized states should grant poor countries with loans at very low interest or even without interest. Moreover, they could freely give material and logistical support not for extravagant things but to reach decent living conditions worthy of the XXI century, consisting in investments in agriculture, manufacturing, construction, infrastructure and education, to help them in fact, if they truly advocates for sustainable development, raising living standards, reducing poverty, eradicate hunger, improve health system etc. Moreover, abandoning arming and deployment costs of war and refocus these huge funds to human development would eradicate poverty on Earth.

Also we suggest that multinationals to contribute annually with a share of profits to the composition of some international managed funds for poor countries or developing countries, but with modest growth perspectives through internal resources, in order to help their sustainable economic development for supporting the harmonious life on Earth.

Regarding the problem of feeding all humanity, which is one of the most pressing and difficult to solve objectives of sustainable development; this has reliable solutions today and can be solved.

Recently, in November 2012, it has been published an experimental project conducted in Australian desert by a team of scientists on three continents; through this project were produced tons of high quality vegetables in greenhouses built in the desert. These foods, initially consisting in tomatoes, peppers and cucumbers, are 100% organic and can be produced throughout the year with very low cost, using practically solar power and sea water which are endless resources available for free. "You could say that this project is more important than anything else going on in the world right now," announced Britain's *The Guardian*, adding: "Growing vegetables without freshwater resources is really miraculous!"

The method and technology used can be extended to many other crops, thereby constituting a practical and viable solution to the problem of feeding world population. The project also can be extended to all desert areas of the world. Basically, instead of testing weapons of mass destruction in these areas it can be produced food. A noble alternative for sustaining life on Earth and also concrete steps towards sustainable development!

## VI. CONCLUSIONS

It is obvious that economic development model based on irrational consumption of resources and increasing the gap between rich and poor of the world is overtaken by timeliness the events facing humanity.

Over time, the economic development was addressed by quantifying macroeconomic indicators, most often through GDP per capita or per economy, which limits the analysis, most often to economic growth, with beneficial effects on the population, in particular by increasing employment rate and population income. But this perspective, this incomplete vision of human life and activity eliminated urgent and real human problems, and because they were not taken into consideration, not only that they were not solved in time, but rather have widened and created repercussions on other variables of development.

Humanity is at a turning point concerning its evolution on this planet, which requires a reorientation to a development model that supports human life and the natural environment. It is more than necessary to return to nature and restore the human connection with it. The concept of sustainable development provides mankind with this chance. Overcoming limitations of economic growth and development, the new model brings together under its umbrella all aspects of economic, environmental and social conditions, quantifying variables from all three components.

Among the most difficult problems which sustainable development has to solve is poverty and ensuring food for everyone on the planet. In our opinion, the problem of poverty can be solved by cumulating several

solutions: directing annually a share of profit to poor countries by the multinational companies, granting loans with very low interest or even without interest to these countries by international financial institutions and highly industrialized states and also material and logistical support to help poor countries to reach decent living conditions. Moreover, abandoning arming and deployment costs of war and refocus these huge funds to human development would eradicate poverty on Earth.

The problem of ensuring food for the entire population of the world has a solution today and it can be also solved. The experimental design from the Australian desert that can produce tons of vegetables throughout the year demonstrates fully the success of such an undertaken. This model of production that can be extended to all areas of the globe and to many types of crops using solar energy and seawater is a viable solution worthy of future technologies.

The new vision of sustainable development is, apparently, the only chance for the evolution of mankind and, why not, a noble desideratum.

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