

SUSTAINABLE DEVELOPMENT, A MULTIDIMENSIONAL CONCEPT

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Abstract:

Sustainable development imposed itself as a corollary of economic term "development". Sustainable development is meant to be the summation of economic, environmental and social considerations for the present and especially for the future. The concept of sustainable development plays an important role in european and global meetings since 1972, the year it has been set for the first time. Strategies necessary to achieve the objectives of sustainable development have been developed, indicators meant to indicate the result of the implementation of policies have been created, national plans were oriented towards achieving the proposed targets.

I wanted to highlight the multidimensional character of the concept of sustainable development. Thus, using specialized national and international literature, I have revealed different approaches of one pillar to the detriment of another pillar depending on the specific field. In the different concepts of sustainable development, the consensus is undoubtedly agreed on its components: economic, social, environmental. Based on this fact, the concept of sustainability has different connotations depending on the specific content of each discipline: biology, economics, sociology, environmental ethics. The multidimensional valence of sustainable development consists of three pillars ability to act together for the benefit of present and future generations.

Being a multidimensional concept, importance attached to a pillar over another is directed according to the particularities of each field: in economy profit prevails, in ecology care of natural resources is the most important, the social aims improving human living conditions. The challenge of sustainable development is to combine all the economic, environmental and social benefits and the present generation to come.

Ecological approach is reflected in acceptance of limited natural resources by preserving natural capital. In terms of the importance of environmental pillar, the genesis of the concept should be considered. „Ecodevelopment” term stated in the World Conference on Environment in Stockholm in 1972 underlies sustainable development. Social approach implies eradicate poverty, providing better living conditions in terms of education, income, and the environment. When a nation's standard of living is high, also cares for the environment is high. This is one relation between social and environment pillars. Regarded from an economic perspective, sustainable development implies a maximum profit in terms of satisfaction other pillars of sustainability: pillar environment by preserving natural capital and social pillar by increasing welfare, employment insurance, respecting the principle of equity. On perspective economy-environment relationship, sustainable development is not quantity but quality.

Regardless of the approach, sustainable development requires simultaneously ensuring of economic development, environmental protection and social welfare, resulting interrelationship between the three pillars: social, economic, environmental.

Sustainable development through its components - economic and environmental - has only one beneficiary - the human factor who receives income, good quality environmental factors, and enjoys equity generations.

Keywords:sustainable development, economy, quality of life, environmental protection, social equity

JEL classification: Q01, O44, I15

Introduction

Sustainable development, by the complexity and capacity for integration, is a means of solving the basic requirements, is the minimum daily, and a mix of concerns that delivers benefits human being and planet. In the different concepts of sustainable development, the consensus is its components, undoubtedly: economic, social, environmental. Based on this fact, the concept of sustainability has different connotations depending on the specific contents of each discipline:

- ✓ in biology, sustainability is synonymous with the need to protect biodiversity;
- ✓ in economy, sustainability is a concept accepted by those who believe that the environment is natural capital;
- ✓ in sociology is made appeal to decision makers over the use of resources;
- ✓ strategy highlights the correlation between urbanization and environmental conservation;
- ✓ environmental ethics moral duty of human being to preserve, to conserve, to use resources sustainably are reminded.

First issue that we think about when we say the phrase “sustainable development” is duration effect. Development is not only present, but also future. It is up to us to respect the principles of sustainable development. Factors that cooperates to the development of a nation (natural, social, economic factors) should allow both present and future development capacity. Durability was associated to development process during the translation from simple development to human development of objective need to reflect the reality of economic and social life: impoverishment of underdeveloped countries in antagonism with excessive consumption trend in industrialized countries, environmental impairment crisis institutional, urban overcrowding, inflation, unemployment.

Regarded from an economic perspective, sustainable development implies a maximum profit in terms of satisfaction other pillars of sustainability: pillar environment by preserving natural capital and social pillar by increasing welfare, employment insurance, respecting the principle of equity. On perspective economics-environment relationship, sustainable development is not quantity but quality; it aims to impose environmental standards, waste removal, unwanted impact of human activities on the environment, waste management, increase productivity, to reduce emissions of particulate matter and greenhouse gas emissions, reforestation, switching to sustainable agriculture. A priority objective of sustainable development is to ensure jobs. Employment rate is the barometer of a country's economy and living standards. The human factor contributes to economic growth through its labor productivity which depends on job satisfaction, health status, the investment in human resources from the time of enrollment in the school system (Teodorescu A. M., *Links between the pillars of sustainable development*, Annals of University of Craiova - Economic Sciences Series, 2012, vol. 1, issue 40, p.170).

Ecological approach is reflected in acceptance of the limited natural resources by preserving natural capital. In terms of the importance of environmental pillar, the genesis of the concept should be considered. „Ecodevelopment” term, stated in the World Conference on Environment in Stockholm in 1972, underlies sustainable development. The environment is subjected to economic pressures and anthropogenic, that's why concern for nature is paramount. Ecological approach involves managing natural assets to enable at least the same conditions for development future generations by respecting the principle of equity, by addressing sustainable patterns of production and consumption. Economic growth can not occur in the absence of natural capital. The negative effects of the current problems of economic and social status (disappearance of species of animals, plants, lakes) will be irreplaceable. The term „sustainable development” lies on the border between economy and ecology. It launch the fundamental challenge of combining a dynamic economy with a society that provides opportunities for all, at the same time improves efficiency and eliminates resource exploitation line between economic growth and environmental degradation (Manoliu M., Ionescu C., *Dezvoltarea durabilă și protecția mediului*, HGA, București, 1998).

Social approach implies eradicate poverty, providing better living conditions in terms of education, income and the environment. When a nation's standard of living is high, also cares for the environment is high. Conversely, you can not ask a poor society to protect nature, to not consume excessive natural resources that are, probably, his only source of income. That is why, sustainable development must be approached differently from one country to another, depending on the economic level. Ideally, policies should contain a set of rules universally respected. Sustainable development through its components - economic and environmental - has only one beneficiary - the human factor who receives income, good quality environmental factors, and enjoys equity generations.

The sustainable development aims ability of present and future generations to benefit from economic growth, to preserve ecological balance, to reduce social inequality and poverty for long term (Teodorescu Ana Maria, *Quality of life and the effects of environmental issues on health*, Annals of University of Craiova - Economic Sciences Series, 2012, vol. 1, issue 40, p. 122). For sustainable development, in order to persist in the future, we must act now on material capital (through economic growth), ecological capital (through conservation, care for nature), human capital (through education, health insurance). Regardless of the approach, sustainable development requires simultaneously ensuring of economic development, environmental protection and social welfare, resulting interrelationship between the three pillars: social, economic, environmental (Ion (Teodorescu) Ana Maria, *Dezvoltarea umană - componentă a dezvoltării durabile*, în *Cercetări doctorale în economie*, vol I, Editura Universitaria Craiova 2012, p. 60).

The three components of sustainable development are, as Khan said in 1995: economic sustainability (growth, productivity, development), social (equity, accessibility, participation), environment (recovery capacity, biodiversity) (Roșu Hamzescu I, *Încălzirea globală la control*, Editura Universitaria, Craiova, 2012, p. 25).

Andrew Dobson made a classification of the different typologies of sustainable development in 1996:

(Lazăr M., *Sistem de indicatori ai dezvoltării durabile la nivel local*, Editura Corint, 2008, p. 18)

-low sustainable development - economic is having subordinate social and environmental components. This is a liberal approach (there are no environmental or social protection without economic base);

-concesual sustainable development – there is balance between the three components;

-strong sustainable development - environmental is predominantly; there is no human development without considering the carrying capacity of the environment.

Analysing these types we understand the dynamic components, weight of each one, overlapping mechanisms. It should be noted that each pillar can only work together with the other two in order to reach the expected results.

The classification made by Dobson invites economists, ecologists, biologists, sociologists to argue for or against each pillar. Biologists and ecologists will consider primordial concern for the conservation, protection of natural resources. They will militate for the the removal of waste, to improve environmental impacts for biodiversity

protection. The economists define environment as natural capital. They will focus on the type of growth, the type of technical progress, the quality of natural resources. Sociologists requires intervention and compliance, rules for living together, connected to civic rights and obligations. Dobson's classification has the merit to highlight a very important aspect: the economic pillar is the basis for environmental protection and social protection (liberal approach); the economic, environmental pillar, the social pillar are harmonized (concesual approach); human development is supported by environmental component (strong approach); it can be concluded that each pillar supports and is also supported by the other two.

Polemics, otherwise constructive, will prioritize a pillar or another, as a fundamental element of sustainable development. Wheeler (Wheeler S.M., *Planning for sustainability, creating livable equitable and ecological communities*, New York, Routledge, 2004, p. 30) identifies four categories of supporters of the concept: environmentalists; economists; those pleading for equity; authors focus on the spiritual and ethical dimension. The author expresses the view for each category. Optimists and skeptics dispute the importance of economic development based on technological performance with auspicious or adverse consequences on the environment. Skeptics are refractory. They have a hesitant attitude regarding economic development. Economists and ecologists work together to find suitable strategies designed to balance and minimize environmental risks.

Ecological approach that defines strong sustainable development is evidenced by World Conservation Union definition (1991): sustainable development means improving the quality of human life but taking into account the carrying capacity of ecosystems assisting this life. The sustainable development involves economic growth while maintaining ecological balance, that contribute to quality of life by reducing social inequalities and poverty eradication. The ecologists, by supporting environmental issues, approve strong sustainable development, taking into account the classification of Dobson. Strong sustainable development typology is supported by C. Kidd (Kidd, C. *The evolution of sustainability*, 1992, *Journal of Agricultural and Environmental Ethics*, 5/1, p. 1-26). He considers environmental component a predominant element.

BJ Brown (Brown B. J., *Global sustainability: towards definition*, 1987, *Environmental management*, 11/6, p. 713-719) emits a definition in full agreement with concesual development by supporting the idea that sustainable development involves equally sustainable use of biological resources, sustainable agriculture, carrying capacity, sustainable energy, sustainable society and economy. The development itself is basically multidimensional, and therefore, talking about social development refer to a single element of the development of all other dimensions possible (Markku L., *The environmental-social interface of sustainable development: capabilities, social capital, institutions*, *Ecological Economics* 49 (2004), p. 202-203). Rules and behaviors must lead to the adoption of a protective attitude towards local environment. Thus, JB Robinson (Robinson J.B., *Future under glass. A recipe for people who hate to predict*, 1990, *Futures*, 22 (8), p. 820-842) sees sustainable development as an ethical principle, everything depends on the behavior of human activities, placing in the category of moralists.

Another view is that the model "three pillars" is wrong because there are compromises that can arise between the dimensions of environmental, social and economic sustainability. Some states expresses fear to halt economic progress caused by new environmental protection reglementations (such as the US and Australia that have not ratified the Kyoto Protocol) and heavy taxation.

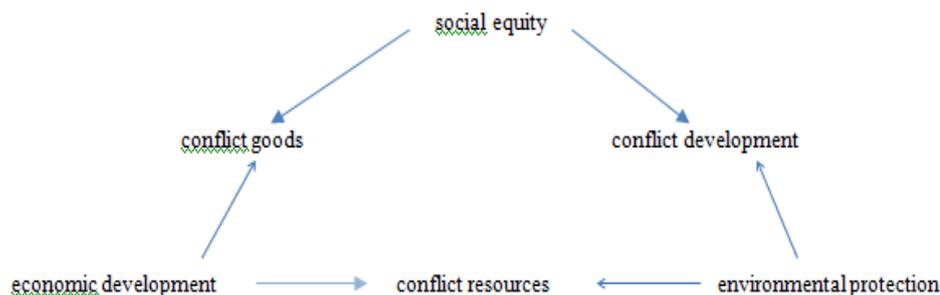


Figure 1- Conflicts between the pillars of sustainable development

Source: <http://www-personal.umich.edu/~sdcamp/Ecoeco/Greencities.html>

In 1997, Hart S. L. issued matrix of sustainability (table 1) that shows the sustainability of economic, social and environmental needs in relation to survival.

Water ensures the efficient running and productive activities in agriculture and industry; in the domestic sector, water allows availability for minimum comfort, removing social inequities. Water source of life, regenerates, nourishes ecosystems.

The need for food leads to the development of agriculture and industry producing an upward trend. Diversified food, healthy food, food suitable parameters in quantitative terms, all these landmarks are included in conscious and efficient exploitation of natural elements and increasing agricultural productivity.

Poor health prejudice the community and individual. Economic growth ensures improved health status of the population. Accessing pollution protection programs has double valence: improving the health of the population, factor that contributes to economic growth and protects ecosystems.

Social sustainability requires individual's right to good living conditions that are provided using resources efficiently. Human being contributes to environmental sustainability through the optimal use of energy. Sustainability matrix author considered that energy is sustainable economic growth and development factor. It is a way to reduce the negative environmental impact of using alternative energy.

The trained human being generates goods and services, participates in the development of quality of life. He has a positive attitude the environment.

Economic efficiency within a country generates income population. Ensuring a steady income removes excessive use of natural resources. Sustainability matrix is a complete and eloquent picture of immediate needs to have a decent existence axis placed economic - social - environmental.

Campbell adopts pessimistic attitude. He considers sustainability as a desire infeasible because of conflicts that exist between the desire for economic development, social equity and the preservation of ecological balance (Campbell, *S.Green Cities, Growing Cities, Just Cities?Urban Planning and the Contradictions of Sustainable Development, Journal of the American Planning Association (Summer, 1996)*).

Table 1- Matrix of sustainability

	economic sustainability	social sustainability	Environmental sustainability
water	necessary in the agriculture, industry	domestic use	ecosystem
nutrition	increasing agricultural productivity and manufacturing	improve agricultural productivity	ensures efficient use of forest and soil
health	improvement health condition	protection against pollution	protecting ecosystems-life support
shelter	supply and efficient use of resources for construction and transport	access to housing and transport conditions	optimal use of energy
Energy	providing energy for industrial development, transport	alternative fuel	reduce environmental impact through alternative sources
Education	participation in creation of goods and services	helps to increase the quality of life	environmental care
income	employment creation, economic efficiency	supports creating jobs	ensures judicious use of natural resources

Source: Hart S.L., *Beyond Greening, Strategies for Sustainable world*, Harvard Business Review, ian/febr, 1997, p.73

Conclusions

Being a multidimensional concept, importance attached to a pillar over another is directed according to the particularities of each field: in economy profit prevails, in ecology care of natural resources is the most important, the social aims improving human living conditions. The challenge of sustainable development is to combine all the economic, environmental and social benefits and the present generation to come.

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