SUSTAINABILITY ASPECT OF ECONOMIC DEVELOPMENT

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Abstract

The concept of sustainability nowadays means different things to different people, and a large part of humanity around the world still live without access to basic necessities. Sustainable development is often an over-used word, but goes to the heart of tackling a number of inter-related global issues such as poverty, inequality, hunger and envirnomental degradation. In theory, development that is not sustainable and not damaging to the planet is very possible. Of course though, in reality there are a lot of politics and challenges involved. Most international actors are still not sufficietly focused on the future implications of theses challenges both individually and collectively.

As a common concept, the sustainable development covers three major approaches: economic, environmental and social development, which are mentioned in literature as interdepended and complementary. The concept is very wide and in some contexts the ecological, institutional, cultural, ethical aspects are included as well. From the other side, this wide range of aspects, which are included in sustainable development, make it weakly defined. From this point of view, it is possible to have some contradictions of sustainable development concepts.

Literature offers many definitions of sustainable development, but it is thought appropriate to use the classic definition, which postulates that „*sustainable development is a kind of development, that meets the needs of the present without compromising the ability of future generations to meet their own needs“.*

This paper evaluates the process of economic development by sustainability aspect. According to the collected theorethical and practical material, assessing the principles and systems of environmental economics and sustainable development, economic development by sustainability aspect is reviewed.

Keywords: economy, sustainable development, sustainability, economic development.

JEL Classification Codes: O1

1. Introduction

Nowadays existing model of public production and consumption is not sustainable. We meet the proves of that in our daily lives, including climate change, decreased biological diversity, increased global migration flows to welfare countries, etc. We constantly are facing increasing gaps in economic and social well-being among different countries, but also inside of them. In such a situation there is no alternative to sustainable development, as it includes three main approaches: economic, social and environmental. The major purpose of sustainable development is to find optimal level of interaction between three systems – biological and natural resources system, economic and social systems. *The major issue* stands, therefore, for how we could create sustainable society or achieve sustainable development.

The huge variety of views on what should be considered *sustainable* exists. Even in scientific works sustainable development is differently understood and described. As a result, the wide range of aspects covered by the concept of sustainability converts it to the object of discussions. That clearly indicates for all of us today sustainability being the most actual social, economic and ecological *problem.* And this derives from some theorethical and practical aspects. First of all, the concept of sustainable development is very undefined. Secondly, exist different opinions on the effectiveness and implementation of sustainable development assessment methods.

The main objectives of the paper are:

- to reveal the diversity of sustainability concept and to define sustainable development;
- to discover the cohesion between sustainability and economic development;
- to present the challenges and perspectives of sustainable development and, to suggest the measures fostering sustainable development.

Methods of reserach: systematic review of scientific literature, common and logical analysis, comparative and abstract analysis.

2. The concept of sustainability and its objectives

The idea of sustainable development grew from numerous envirnonmental movements in earlier decades. The so called *Brundtland Commission* (United Nations,1987) considered the neglect of interdependences among nature, economy and society as the principal cause of persistent policy failures in both environment and development. The success of this report was determined by the fact, that developed and developing countries had the opportunity to express their thoughts. Developed countries expressed their concerns about environment and long term

affect on environment, while developing countries were more concentrated on improving the living conditions. So, in the concept of sustainable development *developed countries* paid more attention to word *sustainable* and *developing countries* to word *development*. The Brundtland Commission also offered the popluar definition of sustainable development as „development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Acting on the Brundtland report, summits such as the *Earth Summit in Rio*, Brazil (United Nations, 1992), were the major international meetings to bring sustainable development to the mainstream. Its action Plan, Agenda 21, considered integrated environmental and economic accounting as a „first step towards the integration of sustainability into economic management". Ten years later, the *Johannesburg Summit* on Sustainable Development (United Nations, 2002) reaffirmed the commitment to the Rio principles and Agenda 21. It did not take up environmental accounting, but called on governments to promote data collection and indicators for sustainable development. *Rio 2012, Rio+20* (United Nations, 2012) the third international conference on sustainable development aimed at reconciling the economic and environmental goals of the global community. Nations agreed "to explore alternatives to Gross Domestic Product as a measure of wealth that take environmental and social factors into account in an effort to assess and pay for 'environmental services' provided by nature, such as carbon sequestration and habitat protection." It was also recognized that "fundamental changes in the way societies consume and produce are indispensable for achieving global sustainable development."

The three approaches of sustainable development cover the following:

- *The economic* concept of sustainability involves requirements for sufficient and stable economic growth, such as financial stability, low and stable inflation rates, capacity to invest, fair distribution of natural resources among the regions and in time between the current and future generations, and requires to reconcile economic activity with productivity of ecosystems, and based on the removable capital theory developed by R. M. Solow (1974,1986). This approach is prevalent in literature, analyzing sustainable use of renewable natural resources, because it is the main theory of optimal and economic effectiveness, fitted to the usage of limited resources.
- Bearing *the environmental concept* of sustainable development, the major attention is being paid to the stability of biological and physical systems. Here the most important goal

becomes to protect biodiversity in order to guarantee the balance in the nature and the ability to adapt to faster biosphere changes while maintaining the ability not to lose future opportunities;

- *Socio-cultural concept* reflects relationship between development and prevailing social norms, and seeks to maintain stable social systems, ensuring protection of cultural diversity and equality between different generations and decreasing the opportunities for vital conflicts.

So, economic concept of sustainable development defines development that creates all necessary circumstances for stable long-term economic growth, environmental concept means that natural resources are used in a way they will be also available for future generations, and social approach requires that all basic human needs should be satisfied in order to create the life of quality.

After having analyzed different approaches of the nature and the concept of sustainable development, it is clear, that majority of science people when defining their own concepts of sustainable development, refer to the Brundtland report, although presenting its different interpretations.

Sustainability may not and cannot be achieved once and forever. Each society will be sustainable in its own way, but no one of them will guarantee the overall sustainability. It is a mobile objective changing together with social values and priorities taking into consideration the quality of environment and opportunities of new technologies.

3. Sectoral integration of sustainability goals

While government action is needed to limit environmental degradation, misguided policies can generate oposite results. This is especially the case of support granted to the sectors that providing goods and services contribute to meeting human needs, though through their activities, also impinge on the resources available to other sectors and future generations. I will try to shortly review the main three sectors – energy, transport and agriculture, while many others like industry, tourism play important role too.

Energy is a key requirement for economic and social development, but certain forms of energy can damage environmental quality when they are produced, transported and used. The main challenges for sustainable energy development are reducing the environemntal costs of energy producion and use, while extending access to basic energy services in developing countries, and preserving energy security. In achieving these goals, should be implemented the measures:

- to reduce energy demand;
- to develop renewable energy;
- to increase the efficiency of existing energy resources;
- to transfer to cleaner technologies to developing countries;
- to make researches in the areas of new, cleaner, renewable energy sources.

Energy security is a growing concern for rich and emerging nations alike. The past drive for fossil fuel energy has led to wars, overthrow of democratically elected leaders, and puppet governments and dictatorships.

Transport contributes to economic growth and meeting social needs for access and mobility. Although, it also contributes to environmental degradation, depletion of non-renewable resources, and damage to and loss of human health. The goal of sustainable mobility could be achieved by reducing the need to use the transport, improving the use of transaport infrastructure and measures, choosing alternate measures of transport such as railways, bycicles, developing public transport, using environmentally friendly transports.

Sustainable transport has many advantages, however, it is extremely difficult to adapt transport sector to sustainable society. One of the reasons is that transportation is interrelated with variety of other activities, that cannot be managed separately. One should also take into consideration, that more than a half of petroleum consumed in the world is due to transport sector.

There are no doubts that renewable resources will be discovered and used more eficiently, but most probably this will not be enough to create sustainable transport sytem in the world.

Past growth in *agricultural* productions in welfare countries has been achieved with less labour force and less land, but using more water, chemicals and machinery. This has led to the increased pollution and natural resources use, destruction of wildlife habitat. Given that agriculture occupies a third of the world's surface and feeds most of inhabitants, we must steer it with new vigor onto sustainable territories. The economic challenge is a complex one then. It requires proper accounting of resource use, as well as addressing purposes of consumption. What is normally counted economically as an "externality" needs to be internalized instead. For example, tobacco consumption clearly shows how land is used for a product that is costly to the environment, to people's personal health and to society's resources to provide health care.

Beyond direct subisidies, agriculture is often exempted from measures applied in other sectors to address environmental damage, despite being a major contributor to these same problems. Organic farming would be a partial solution as it helps to solve the basic problems in the countryside. It is based on modern, environmentally friendly technologies. The economic goals of organic farming are the following:

- to maintain density of populated territories;
- to provide citizens with high quality food products;
- to diversify farming activity;
- to apply preventive measures for social crisis;
- to create new jobs;
- to enhance the market.

Sustainable farming must seek for profitability (income guarantee), social (economic justice for current generation and between different generations) and ecological (environmentally friendly approach) cohesion. All participants of this system are responsible for sustainable agriculture –from farmers through producer and institutions to consumers.

4. Key challenges for sustainable economic development

The world's centre of economic gravity is changing and developing economies are among the key drivers of global economic growth. There is a growing diversity of growth and development models which underscores that there are no one-size-fits-all solutions.

The nature of development financing is also changing. Many developing economies are becoming important actors in international finance, trade, investment, innovation and development cooperation, and are contributing to changing the architecture of development co-operation.

Changing geography and nature of poverty raises important questions for traditional approaches to development. A growing proportion of the world's poor live in middle income countries and urban areas today than in low-income countries and in rural areas. This highlights the important role of institutions and policies overall in those countries, and the need to continuously improve policy making and implementation to address these persistent challenges.

Inequality is an increasing challenge in advanced and developing economies alike, potentially undermining further growth and social cohesion. It has become clear that the benefits of growth do not automatically trickle down and generate more equal societies. It will be

important to adopt an inclusive and multidimensional approach to policy making, looking also at the social dimensions such as gender inequality.

The Organization for Economic Cooperation and Development (OECD) in its report "*Sustainable Development: Critical Issues*" (2001) has also identified some of the conceptual and practical barriers standing in the way of progress. Attaining path of sustainable development requires:

- elimination of negative externalities that are responsible for natural resources depletion and environmental degradation;
- securing public goods that are essential for economic development, such as those provided by well-functioning ecosystems, cohesive society;
- retaining the flexibility to respond to future shocks, even if their probability, size and location cannot be assessed with certainty.

Sustainable development also underscores the importance of taking a longer-term perspective about the consequences of today's activities, and of global cooperation among countries to reach viable solutions.

It is true, that strong economic growth driven by technology advances and by increasing integration between countries has lifted the economic and social well-being of billions of individuals. But many individuals and countries have remained at the margin of this process, failing to share the benefits of economic growth.

Further, because of inappropriate incentives to consumers and producers, the higher scale of economic activity has often led to pressures on the local and global environment, interfering with the climate system and leading to biodiversity loss, water scarcity and over-exploitation of marine resources.

However, despite the importance of „de-coupling" economic growth from environmental preassures, the implementation of effective policies is made more difficult by the existance of many unsatisified social needs. Pressing problems of social exclusion, poverty and unemployment are reducing attention paid to environemntal problems. In many countries — rich and poor — this is often because of a perception that sustainability is expensive to implement and ultimately a brake on development. Poor countries for their part usually lack the physical infrastructure, ideas and human capacity to integrate sustainability into their development planning. Besides, they are often quite skeptical about rich countries' real commitment to sustainable development and

demand a more equitable sharing of environmental costs and responsibilities. Many people also believe that environmental problems can wait until developing countries are richer. Because of these problems, societies are less willing to accept structural adjustments associated with shifts towards more environmentally sound patterns of production and consumption. Thus, a social aspect is integral to all desicussions about sustainable development.

Progress towards sustainable development requires changes at both the domestic and international level, it requires appropriate mix of instruments and institutions capable of implementing them in an open and accountable manner. To achieve this all countries need to make markets work for sustainable development, for example, using price system, to harness science and technology by providing right incentives to innovators and users of technology, use of public and private partnership, to strenghten decision-making by using institutions willing to integrate economic, social and environmental objectives at all levesl of policy development and decision making.

Development challenges are global challenges. Issues such as climate change, natural resources scarcity, and food and energy insecurity have implications for all. In a highly interconnected world, global shocks can reverberate quickly, and externalities such as macro-economic instability, social and economic inequalities, and conflict can have large and wide ranging

Many of the most pressing challenges today's societies are global. Their effects are either independent of where the damaging activity takes place (climate change) or the consequences of continued degradation spill over national borders.

The importance of more effective international cooperation in addressing these challenges is especially important as globalization is often perceived as a major threat to sustainability. Globalization is a major force stimulating competition, resource allocation and the international distribution of technology. Moreover, economic benefits of globalization may contribute to meeting important environmental and social objectives. Scope exists for improving the coherence between international trade and investment regimes, on one side, and environmental and social safeguards, on the other. Also, more systematic assessment of the environmental and social implications of trade and investment liberalization would allow more informed decisions by policy makers, and a better sequencing of the reform process.

As it was mentioned before, the shift in economic weight from developed to developing countries has increased the role of developing countries in ensuring integrity of global economic,

environmental and social systems. World trade and investment flows involving developing countries have significantly increased in recent years. But a large number of poorer countries have failed to benefit from globalization. Although, developed countries can help developing countries avail themselves of the opportunities of globalization and to achieve sustainable development domestically in a variety of ways, but mainly by increased access to needed investment flows and markets and more effective development cooperation programs, so as to help developing countries build their own capacity to attract private investment, protect the environment and reduce poverty.

Finally, there is a huge variety of areas where sustainable approach is needed but there are some where the risk of non-sustainability are highest and where international cooperation is required to modify unsustainable trends. These areas are *human interference with the climate system* and the *unsustainable management of a range of natural resources.*

5. Measures fostering sustainable development

Every person is not only using natural resources, but with his activity influencing surrounding environment. Constantly increasing population and its needs arrived to the level of influence with harmful consequences. If we want to achieve sustainable development we need to implement essential changes in all described sectors. To gain that we can accumulate a wide range of measures – regulatory, administrative, economical, ethic, educational, etc. But in this paper will be covered only economic instruments of sustainable development management as their effectiveness relies on many different factors of economic activity.

Economic factors of sustainable development define the cohesion of economic outcomes derived from decisions made by economic subjects and extent and nature of environmental impact. According to this, economic factors can be divided into two interrelated groups: incentives, i.e. economic leverages of sustainable development, and outcomes, i.e. the impact of sustainable development and its management leverages on financial results of economic subjects.

The following economic measures of sustainable development might be notified:

- *Progressively eliminate subsidies that together with taxation systems are often used to reallocate in favor of those who need that the least and that are damaging for environment, because support unsustainable production and consumption.*

Often subsidies not only contort competition conditions, but also result in resource waste and social inequality. Subsidies should be addressed to reduce all kind of activity that is

damaging environment. Implementation of this measure could have positive economic impact, but it is limited by other objectives, especially related to social cohesion and interest groups activity.

- *To introduce the so-called "Tobin tax" for all international financial agreements*.

This would allow financing huge international environmental and development projects. It is suggestion by Nobel Laureate economist James Tobin (1970), to impose a tax on all spot conversions of one currency into another. He thought, that taxing money transfers by 0,1 per cent, this tax would bound the quickest and the most dangerous financial speculations. The main idea of Tobin tax was to allocate collected funds to the countries that were facing the poverty at the moment. On the other side, due to large money tranfers big amounts of funds would be collected and used to finance environmental projects.

- *To increase insurance deposits for environmentally risky sectors (nuclear energy) in order they appropriately reflected the risk level.*

Ecological risk is globalizing, so it is important to compensate and reduce it. Insurance is one of the main financial guarantees ensuring that the negative impact on environment will be remunerated.

- *To implement principles of ecologic banking by creating funds holding tax exemptions and providing actives that would finance "loan portfolio" of debtors meeting specific criteria.*

For a long time banks considered themselves as environmentally friendly organizations. In fact, it is difficult unambiguously to assess banks' impact on environment. But in times when environmental protection becomes more and more tender problem, banks started to promote active economic, political impact by motivating their activity to be more environmentally friendly. But of course, besides the risk assessment, the bank led by principles of sustainable development in their activity should also follow some principles, that instead reduce bank's profitability. It is clear, that the concept of sustainable banking requires that banks applied different service tariffs for clients committed to sustainable development in different levels.

- *To apply stepped-up depreciation for investments into environmentally friendly technologies*.

When talking about enterprises investments directed to reduce their negative impact on environment or to improve environment in the concept of long-term development, should be highlighted the importance of such investments, especially in the heavy industry. According to

this would be appropriate to create tax promotion instruments aiming to increase investments of this nature, and vice versa, to impose tax system unfavorable for enterprises not committing themselves to improve their impact on environment while seeking to gain competitive advantage through the lower production costs.

- *To reorient current economic competitive policy in achieving ecologic and resource protection objectives.*

In market economy, ecologically educated consumers have a unique right to fasten movement towards more sustainable market economy by constantly purchasing environmentally friendly products. Governments could also support this process through introduction of ecological labels and financial mechanisms encouraging ecologic consumption. But the challenge is not only to achieve sustainably qualitative model of consumption, but also to reach sustainably qualitative gross consumption level.

- *To move to assessment model, where all costs covering the "lost" link between scarce resources and their value would be reflected in the price.*

In market economy, the main signal for both business and consumers is the price. So it should include environmental costs of all products, processes and services. While resources are disappearing, their value increases. Natural resources like oil, gas or coal are very limited; their consumption has steadily increased in recent years resulting in their price increase. So, the price increase of natural resources sends clear signal of scarcity.

- *To apply preventive principal "polluter pays".*

This principle means that all responsibility, including material, is applied to polluters or consumers, i.e. all social and economic losses caused by pollution and resource usage should be covered by polluters (consumers).

- *Where possible, to pass the ownership rights to the "lowest" suitable level of community or society according to extent of resources included.*

Movement to sustainable development is like a movement to a new level in government and citizens' communication, where the government delegates the power to citizens. Using this approach, people are motivated to seek their own benefits, and also to help solving substantial country, regional or global problems.

- *To guarantee stable prices, salaries and employment rates that would lead to long-term approach.*

Lower inflation rate would lead to clearer price signals and better investment decisions made by economic agents; also would protect citizens getting fixed salary. These are essential assumptions encouraging ecologically sustainable activity.

Conclusions

1. There are many definitions of the concept of sustainable development in the literature; however, its essential idea is presented by the Brundtland Commission definition "the needs of current generations cannot compromise the needs of future generations". Such an approach means that current generation should take care of the needs of future generations; the well-being of people society is closely linked to the welfare of natural ecosystems; economic development covers not just physical, but also ethic restrictions, and common economic purpose is to achieve sustainable development combining economic, social and ecological development.

2. Sustainability cannot be achieved once and forever. Each society will be sustainable in its own way, but no one of them will guarantee absolute sustainability. In different countries and regions having different economic, cultural development levels, different traditions, variety of natural resources and environmental pollution, the aims of sustainable development may be quite different.

3. Economic aspects of sustainable development are reflected in the concept of maximal income received by maintaining stocks of capital generating economic benefit. The base of sustainable development – to find the optimal cohesion level between three concepts – biologic and natural resources system with economic and social system. Sustainable economic development includes sustainable development of main economic sectors – energy, transport, agriculture, industry.

4. The world's centre of economic gravity is changing and developing economies are among the key drivers of global economic growth. Attaining path of sustainable development requires elimination of negative externalities that are responsible for natural resources depletion and environmental degradation; securing public goods that are essential for economic development, such as those provided by well-functioning ecosystems, cohesive society; retaining the flexibility to respond to future shocks, even if their probability, size and location cannot be assessed with certainty.

5. After decades of measuring economic progress in terms of income growth, national leaders are now paying much more attention to the quality of that growth. The shift stems from a growing realization that an impressive rise in gross domestic product per capita in the short term means little if living standards are undermined in the long term by poor health, underinvestment in education, a degraded environment, and a widening gap between rich and poor.

6. There is a huge variety of areas where sustainable approach is needed but there are some where the risk of non-sustainability are highest and where international cooperation is required to modify unsustainable trends. These areas are *human interference with the climate system* and the *unsustainable management of a range of natural resources.*

7. If we want to reach sustainable development, essential reforms are needed in all sector of society.

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