Sustainable Development Under Impact of the Crisis –
Global and National Dimensions

Đukić Petar, University of Belgrade, Faculty of Technology and Metallurgy,
Republic of Serbia

UDC: 502.12; 502.131.1 JEL: Q01; Q56

ABSTRACT – Economic crisis threatens the cardinal principles of all strategic development documents, including the concept and practice of sustainable development. Its implementation, by definition, depends on the current economic performance and trends which are defined by many determinants that, in the short to medium term, can not be totally predicted.

However, sustainability as a complex category also refers to the reaction of system in crisis situations. Does the company, city, transport system and energy function in conditions of natural disaster, even wars – it has always been considered the a key issue of social order and organization and preparation of an emergency, then in the strict sense, it can not be put in the context of sustainability.

The concept of sustainable development means peace and co-operative conditions, but should not exclude the possibility of response to emergencies. Moreover, sustainable development is the characteristic of a social system that easily exceeds the emergency, but which also does not turn current economic trends and socio-political processes from the direction that ensures the long term social and environmental compatibility with economic and technological processes and ways of life style. The global economic crisis has placed priority short-term goals such as output growth, investment and employment, and often the survival of entire national economies and regions, the monetary area and other communities. Serbia is facing difficult challenges that are not only affecting the sustainability of economic growth but also, despite the conventional view, there are indications for a different model of growth and development, based on new structural conditions and opportunities provided through the „green“ economy, the new „green“ investments, energy efficiency, social and cultural inclusion.

KEY WORDS: global economic crisis, sustainable development, economic sustainability, priority of development goals, employment, green economics, energy efficiency, social inclusion

* This paper is done under the project „Modeling of Serbia’s Development and Integration into Global Trends in Light of the Economic, Social and Political Movement“, record number 179038, funded by the Ministry of Education and Science, Republic of Serbia

* Karnegijeva 4, 11000 Belgrade, djukic@tmf.bg.ac.rs
Many questions have been asked about the consequences of global economic and financial crisis, which are related relating to the sustainability of the current economic system. In early 2012, the fourth year of crisis and in its second wave, participants of the World Economic Forum gathered in Davos (Switzerland). This meeting for long time characterized as a summit of business and politically most powerful people in the world. Most of the questions this year may be reduced to one essential: does capitalism have a future? If so, how then should look like the model of „responsible capitalism“ to ensure planetary economic and social future in the twenty-first century?

Just ten days after World Economic Forum Conference 2012, at a meeting on Kopaonik, or so-called „Serbian Davos“, organized by the Serbian Economists Association, it is revealed the official reduction in the growth rate of gross domestic product for 2012 from 1–1,5 percent to only 0–0,5 percent, of course under the relentless pressure of binding statistics and IMF forecast. The key conclusion of the Prime Minister of Serbia, at the opening of the conference, was that Serbia needs savings this year, which will be provided saving the state apparatus (referred to as business travel and use of official cars) but this does not go to the expense of citizens and pensioners. Without the analysis of basic economic postulates about the correlation between consumption and production, or the amount of real income and employment, on this occasion it should be only noted that attitude toward the fundamental principles of sustainability in a crisis, is a typical, expected short-term, reaction of politicians before elections (and those in the executive branch). Prospects for their direct action, almost by definition, are related to the next elections, so the question is – does it really make sense to have a dialogue on sustainable development with them.

On the other hand, it is more than evident that, in light of general economic-technological and development changes related to global warming, energy efficiency, use of renewable resources, water availability, food and arable land, today more than ever is necessary to recognize long-term consequences of the crisis current trends and the anti-crisis measures, in order to recognize generally acceptable coordinates of sustainability and more or less implement them.

### The crisis and sustainability – economic theory and ethics in global terms

Theoretically, the concept of sustainability and strategies for sustainable development in today’s world are facing three key challenges or threatening factors. These are:

- **Terrorism** as a global phenomenon, and consequently „sabre rattling“ in the world of big military-political contradictions,
- The global geo-physical and climate changes, and
- The current economic and financial crisis in the world.

This finding of the author of this paper is based on the results of the monograph Sustainable Development – Utopia or a Chance for Serbia (Djukic 2011b: 17-24).

---

1. Prime Minister on 6 March, „recalled the agreement with the IMF according to which current consumption should not threaten the established deficit, despite the reduced inflow into the state coffers, and said that spending cuts will not jeopardize the payment of pensions and wages in the public sector“ (Danas, March 7, 2012)
The first fact, although very threatening, is not the topic of this article, the second is only partially, and the third could perhaps be objected that it is only a temporary (cyclical) phenomenon and, as such, does not represent a permanent challenge for the theory and practice in question here. However, it could be argued that crises, as such, are inevitable, and that sooner or later they emerge as an integral part (phase) of any life cycle. Then, this analysis could also be applied to any, past, present and future crisis as an obstacle to the realization of the sustainable concept (Djukic 2009).

If we start from the pure practice, one might ask: if the global crisis is an extraordinary situation in every way, could it be considered as a sufficient reason to stop talking and start acting in the long-term interest of survival in accordance with the planetary laws and interests of future generation? Some kinds of answers to this issue are trying to give not only representatives of the major economies of the world, experts and business sectors, but also of institutions such as UN, EU, and also fierce critics of the existing market system and globalization of world economics, politics and social relations. Each of them interprets the crisis in its own way as a huge obstacle, but also a challenge for what follows after it. And that what follows largely depends on the current analyses, strategies and measures taken.

The founder and first instigator of the aforementioned World Economic Forum in Davos, prof. Klaus Schwab, at the January 2012 meeting said verbatim: „We are in an era of fundamental change that urgently requires new ways of thinking. We have a general crisis of morality, we are not willing to invest in the future, we are undermining social harmony and we are in danger of completely losing the trust of future generations.”2. If you just select and connect the key words and phrases in this sentence: „new thinking”, „moral”, “trust”, „social harmony”, and finally „future generations”, there is no doubt that it is a critique from the perspective of sustainable growth. More precisely, it attempts to arrange a global world, not only economically, by the principles which were conceived in 1987 in the UN report *Our Common Future* prepared but also by Brundtland Commission. Sustainable development was first defined in quite general terms as “development toward meeting the needs of present generations without jeopardizing the possibility of future generations to meet their own need” (Brundtland, 1987). Later, at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, it was adopted the co-called *Rio Declaration*. It contains 27 principles of sustainable development and recommends that each country does have its own national strategy for sustainable development, in order to achieve jointly defined objectives (Djukic 2011: 8).

The moral dimension, as an inevitable issue in theory and practice of sustainable development, is discussed in detail in one of the most famous and best textbook of environmental economics. (Goodstein 2010: 23-25). Goodstein analysis of theoretical sustainability is primarily economic, and illustrated with nice practical examples but it is too American. What is missing is the applicability of the theory of sustainable development on the strategic positioning of the less developed countries or countries in transition and many developing countries. Programmes concerning the practical sustainability of planetary change, not only climate but also the economy, technology, lifestyle and the impact of all

2 According to:
http://www.slobodnaevropa.org/content/davos_da_li_kapitalizam_ima_buducnost/24461895.html
these factors on the environment and resources, are considered mainly as a separate externality and as an economic category.

In the history of economic thought, the moral dimension of economic theory and practice was not only a product of the great challenges such as global crises (as is the case today) or destructive wars or global climate changes. Most major economic scienties from the past of economic theory such as Samuelson, Galbraith, Marshall, Keynes, Marx previously, and Adam Smith to some extent, in many reflections stated their own opinions about moral beliefs and the principles that govern or should govern economic behaviour of humans. Simply put, the moral dimension of human individual and social action can not be separated from his/her economic activity (Djukic 2008: 105-108).

It is understood that the ethical component of the economy had to be thoroughly searched by economists who, after the sixties, began systematically to be occupied with a field of economics of environmental protection and natural resources. During sixties and seventies worked economists who have began to treat pollution and congestion also economically i. e. economic aspects of environment and natural resources. Of these, more than others, in this area, were engaged in unconventional “green-minded” authors Mishan, Knees and Boulding (Djukic 2011c: 10, 11).

In 1972 when the UN Conference on the Human Environment was held under the slogan „Only One Country“ and that same year published the previously mentioned The Limits to Growth, at that same time it was already emerging the conscious that the life processes on earth are interdependent and that a very Planet is a unique life system which rests on a fragile balance that must be maintained only in the communion (Jovanovic Gavrilovic, 2006: 53-58).

Today, on the moral aspects of global politics and economy are increasingly discussing not only politicians and representatives of developing countries, but also many experts from the developed parts of the world, such as Western and Northern Europe, Asia, and North America. Moral principles and aspects are especially emphasized in the analysis of global politics and economics in the fight against climate change (Giddens 2010).

Ecological theory in Serbia also discussed the ethical phenomena related to the environment and resources, but not concrete enough, which would link economic development with the ethical principles, although such attempts have been made (Various authors, 1996).

Therefore, this paper insists on the integrated understanding of sustainability as it is shown in Figure 1. Namely, the positive development in economic, social and environmental spheres are considered to be sustainable in a practical sense only if they lead to overlap of all three motives, i. e. if economic growth and investment, market-based, are environmentally friendly and don’t jeopardize social balance, or if that threat can be compensated by some other factors of the sustainability aiming intergenerational justice. The key term for understanding is overlapping of all three objectives: economic growth, nature conservation and environmental protection, as well as social balance, which is the essence of sustainability. It should be also understood that the overlapping of interests of economy efficiency and environmental preservation leads to tolerance, of economic development and social system towards fairness, and of economy and environment to life-giving.
Concretization of (un)sustainability in crisis

In the so-called second wave of global economic crisis, when the European Union definitely remains in deep recession, in an attempt to save what can be saved (euro, and confidence in the common monetary system and economic community in general), and even China was forced to reduce the growth rate at about 7.5 percent, it could be even discussed about the positive potential of the creation of a new sustainable system of functioning economy and society during the crisis. As a reminder, already during the first wave of global crisis (2008–2010) which has required huge government incentives in the economy, banks and various businesses around the world, to prevent the collapse, there was, more or less, orientation that anti-crisis financial packages should be focused more to „green-economy“ or measures leading to sustainability.

Since the package of public investments to overcome the crisis, not enough attention is recognized aimed to sustainability. According to Green Peace remarks, even in 2008, most of the economic stimulus plans could stimulate the country’s rapid growth in greenhouse gas emissions, and even affect withdrawal of the so-called green initiatives. Packages of tax cuts, lending and stimulation of additional spending, are not in accordance with environmental assurances made by the governments in order to approve funds. A more detailed examination shows that the „green“ consumption (funds directed to sustainable development) makes only a small part of a larger financial pie (Financial Times,”How green
is my stimulus“ (2009). As the part of the total stimulus package of 486 billion U.S. dollars, said representative of the Green Peace, Japan will spend only 2.6 percent on “green” projects. Out of the Chinese intervention package that totalled 586 billion dollars, according to the findings and advice of experts, it should be invested as much as 38 percent in the “green” projects and the so-called low carbon activities; but „Green“ package of China will likely remain very modest.

In terms of environmental responsibility in the crisis atmosphere, slightly lead the individual EU countries and USA. Package of massive intervention of U.S. President Obama, will be largely aimed at millions of „green jobs“ through reconstruction projects of federal buildings to make them more energy efficient and also to plan the reconstruction of the national electric power network for transmission of electricity in order to raise energy efficiency.

Germany and France are leading by the participation of „green“ investment in Europe. Germany will even direct 13 percent of its package towards low-carbon industries. Most the theorists of “green” and sustainable development give the best grade, from the standpoint of sustainability of emergency financial points in the global crisis, to South Korea (Financial Times, 2009)

This insistence on sustainable development and „green projects“ that are mentioned in the context of global measures of intervention and stimulation of recovery in the latest crisis, may appear as a kind of exaggeration. However, if we take into account previous responses to crisis challenges and accelerated development that follows, which is anticipated after every crisis, including the current, it becomes much clearer how important it is that the latest structural and other emergency anti-crisis measures are oriented towards sustainability. Besides, the key positive changes in the structure of the global economy that shifted production to lower levels of many emissions (lead, sulphur and nitrogen compounds, and chlorofluorocarbon) or to energy efficiency and lower material intensity, were stimulated by the effects of stagflation and structural crisis that appeared along with it in late seventies.

Serbia at the time of crisis: the official search for sustainability

Perhaps Serbia today is economically too weak, and tired of the most pressing short-term and especially those in transition and longer-term structural problems, for progress in the conceptualization and implementation of measures for sustainable development. However, the design of possible post-crisis development trends, and many so-called structural changes that will inevitably inevitably follow, is the basic premise of the sustainability of each system and the sustainability of development in general.

The priority of economic growth

It is understood that many experiences with the recent, very ambitious, official planning of growth and development in Serbia, do not favour those who advocate a strategic overview of sustainable way in the economic future. For that are legally responsible official „models“ by which governments are trying to boost the economic momentum, and at any price to ensure the planned growth of GDP and employment, at least in the minds of people.
Such an optimistic scenario was officially promoted in late 2010 when the concept of „Serbia 2020“, through so-called „New Growth Model“, even projected an average growth rate of 5.8 percent per year, which should double GDP for a decade (7,500 Euro per capita, and more than 400,000 new jobs). Nominally, „The Post-crisis Model of Economic Growth and Development of Serbia 2011-2020“ aspired to fit into „New Growth Model“ even the detailed strategic launch of industry with an average growth of 7,5 percent, then its ten-year growth would be 106.2 percent. It was also planned the revitalization of agriculture and increase of its share in GDP to 39.7 percent, and in particular the restructuring of the public sector, strengthening the energy sector, up to the positive turnaround in exports and investments on which such growth should be based. Development consequences would include the share of fixed investment in GDP even by 28 percent, with annul growth of 9.7 percent, reduction in government spending from 12.5 to 12.4 percent at the end of period, etc. (Stamenkovic, ed. by, 2010: 8-10). The data available tells a different story.

Figure 2. Comparative indexes of global GDP and GDP of Serbia (1989= 100)

Neither is starting position of Serbia favourable, nor the actual circumstances of the above-average growth in the „New Model“, are based on not at all realistic assumptions. Instead of growth rate of 4-5 percent at the beginning of the period and the average of 5.8 percent for the entire period, in 2011 growth achieved was less than 1 percent, with staggering odds for 2012. If we take into account the same starting position of the index volumes of the world economy and economy of Serbia in 1989 (100), it can be stated that the index of the world economy today is about 170, and Serbia’s is only 72 (Fig. 2).

Opportunities for the success of Serbia on the basis of the effects of market reforms and the establishment of institutions that promote economic growth and development, as soon as
possible, are not considered/exploited very good. Serbia’s competitiveness is at 95th place in the world ranking of 139 countries according to indicators of the Global Competitiveness Index (World Economic Forum 2011). The latest analysis of the Heritage Foundation shows that Serbia is by economic freedom only in 98th place out of 179 ranked countries (Index of Economic Freedom 2012). In both cases, in the region of Southeast Europe, Bosnia and Herzegovina have the lower ranks. In terms of market conditions and other reform prepositions (structural changes, institutions, infrastructure, macroeconomic balance, depth and level of development of the market, the competition, the efficiency of state administration, as well as other indicators such as political stability), Serbia is still far behind its competitors, therefore it could not be argued that Serbia has requirements for quality and sustainable growth following the crisis. How, then, the assumptions of such latently very problematic economic growth can be treated in terms of environmental and social sustainability?

In terms of dramatic deepening of the crisis, it can be answered on these questions only on a more or less bad or acceptable way. But that does not mean that these issues should be postponed for better times. It is the present state of Serbia in a world full of contradictions and threatening tendencies, which should be a reason to strategic confrontation of attitudes and harmonization of concepts for sustainable management of the crisis and its aftermath. In any development programme or strategy paper, which marks the paths of economic development of Serbia, has never been made the slightest attempt to conduct an integrated economic-environmental accounting, which would at least shed light on all the external consequences of (un)sustainability of current economic trends.

Environmental policy and the consequences

Previous statement does not refer only to aforementioned, actually already useless document – Strategy “Serbia 2020”. Until now, environmental costs and benefits, and other economic consequences of economic developments on the environment and natural resources, have never found place in the strategic national projections and binding national documents. In fact, despite the official introduction of the principle “polluter-the consumer-user-pays” (Law on Environmental Protection, 2007), neither at the macro nor at the microeconomic level there was no attempt to internalize externalities in terms of environmental accounting. Already at the beginning of the last decade of the twentieth century, United Nations introduced the system of ecological national accounts (System of National Accounts – SNA) and the European Union member countries since 2011 have an obligation to calculate and present the environmental or “green” gross domestic product (Djukanovic, Jovin, 2011).

In this respect, Serbia is still acting as part of the world for itself. It is interesting that the very records and monitoring of the devastation of nature and effects of pollution, in Serbia are not accepted as part of its international obligations since the Federal Republic of

---

3 The exception in this respect seems to be National Strategy for Sustainable Development (group of authors, 2009) which was unfortunately adopted in early May 2008, just before the start of the economic crisis in Serbia. Therefore, its principles, and projections, which related to the period to 2017, are practically abandoned, and operationally useless.
Yugoslavia (in the early nineties of the twentieth century) when it was required of Serbia. Financial reporting is an important component of economic sustainability. The countries of developed world today in their national accounts, largely record net externalities or so-called „green“ net product. Future financial statements of companies and countries should be a true and fair representative of their profit or loss as well as the movement in value of assets, liabilities and capital. These reports should also include information from environmental accounting.

However, such an accounting in Serbia has not yet been given appropriate attention. Already in 1992, as a result of the Maastricht Treaty, the European Federation of Accounting Experts from Brussels forwarded to Serbia Questionnaire on Environmental Accounting. However, due to the negligence of the former federal government, as well as professionals from the Association of Accountants and Auditors, that important questionnaire was neither filled in nor forwarded back. Because of that our country was automatically excluded from research and development projects of environmental accounting.\(^4\) (Djukanovic, 2010).

The situation has not significantly been improved until today because every crisis is definitely moving away society, the state and economy from the concept of sustainable development as well as „green“ accounting. Unfortunately, this applies to many other aspects of sustainability.

Considering the drastic decline in industrial production in early last decade of the twentieth century, Kyoto Protocol didn’t have direct and rapid consequences on Serbia. As such, it could be ratified immediately after the democratization of the 2000th (for Yugoslavia as a whole). Its formal acceptance was done only in 2007. This meant as a relatively bad signal, especially to the European climate change policy.

**Sustainability and the crisis in Serbia – the practic manifestations economic and social issue**

Some of the basic indicators of economic behaviour in a crisis are better to be mentioned at the beginning of this segment of the analysis. During the winter of 2011/2012, a few very huge and important events happened in Serbia, which are indicators of the sustainable impact of this crisis. Just a few of these are as follows:

- In late 2011, IMF has frozen precautionary arrangement under which Serbia has been allowed to draw nearly 2 billion dollars, officially because of spending without control.
- GDP growth in Serbia is every day less likely. That is confirmed not only by the IMF projections (reduction in the anticipated rate from 3 percent even to 0.5 percent), but also according to the forecasts of the Serbian Government.
- Probable decrease in investments in 2012 (regardless of the official inflow of two billion dollars in 2011) primarily due to bad signal sent by the withdrawal of one of the most important foreign investors (U.S. Steel Serbia).

\(^4\) This paradox was first noticed by Dragojevic, D. and Lekic, D. in the paper „Development and Application of Environmental Accounting and Auditing“, *Finance* 11–12, Economic Survey, Belgrade, p. 1000 (2001)
That caused that Smederevo municipality representatives, after the referendum held on January 18, 2012, at which they officially and clearly said „no“ to the refinery (Comico Oil) because of environmental unsuitability, under the pressure of crisis, they changed their mind and gave in, so the contract to at least invest in a refinery became certain.\(^5\)

Budget of Serbia is in a constant rebalancing, therefore because of the reduction in revenues, almost all items are under the pressure of inevitable reductions. Bravely and loudly „no“ to increase in VAT, obviously will turn into a „yes“; but if it must be then, that bitter fruit of the crisis, at the time of finishing this paper, is „generously“ left to new government.

Finally, important news, which remained without adequate response last year, is that in last year’s revised budget in September 2011, was unspent environmental fund, intended to so-called „green items“ of 2.5 billion dinars, which was diverted to subsidies for the construction of housing (Act on Amending the Budget of the Republic Serbia for 2011).\(^6\)

**Sustainability of energy – a priority of the first order**

It can be considered as a truly emergency situation when the temperatures in Serbia were almost a month (late January – late February 2012) below freezing and the snow threatened to paralyze transport and communications, water supply etc. However it can not be said that the heating based on electric power (the form of final energy of vital importance) is normal and sustainable. Specifically, the households during heating season are becoming a major consumer of electricity in Serbia, and in terms of increased consumption (even in summer), there is a growing threat for the system to collapse. In order that power system of Serbia was able to function at all, it was necessary to take urgent measures by the state administration, to switch off almost half of the domestic industry, and even for fortnight also schools, kindergartens and even universities. This is proved by the results of industrial production, which suggest that in January 2012, the Serbian industrial production was 12 percent lower compared to January last year, and even 8 percent lower compared to February previous year.

\(^5\) According to a previous offer, refinery construction project would cost between $250 and $400 million. The planned capacity is 100,000 barrels; a fuel produced would be in line with European standards. During three years of construction, it would be hired over three thousand construction workers. These economic facts in emergency conditions become predominant, so the positive response of local government has imposed itself.

\(^6\) In rebalanced budget all other items on the level of expenditures have increased, while revenues were substantially reduced, so the overall budget deficit for 2011 was raised to 4.5 percent of GDP. But, according to may calculation, due to reduced growth rates by the end of the year, budget minus was increased at least to 4.7 percent of real GDP. This is, of course, done with the help of additional government borrowing, which is another indicator of the „sustainability“ of the fiscal system in crisis.
Figure 3. The average price of electricity per (Euro/kWh) in Serbia and reference countries

Source: Eurostat and Energy Agency of the Republic of Serbia

Figure 4. The energy intensity of Serbia (2004) – comparison some countries around

Source: Eurostat and Energy Agency of the Republic of Serbia
Notwithstanding the emergency weather conditions, one could not claim with certainty that Serbia had to fall into lock operation of the electricity, as well as many other systems in crisis. Reconstruction and modernization of energy is a process that is supposed to have been happening for almost a decade. Although it can not be said that in this respect nothing has been done, the results are more than cautionary. Despite the fact that Serbia has s slightly higher gross national product compared to Bosnia and Herzegovina, Albania and Macedonia, currently, electricity in Serbia is the cheapest in the region. The comparison of electric power prices in Serbia and reference countries in the region shows that Serbia charges cheapest electricity in Europe (only 0.048 Euros on average per kWh, Figure 3).

Regardless of income level and living standard, data on the losses, both technical and economic, that are recorded high at the regional level (18 percent on line) show that electric power system of Serbia is constantly working on the verge of „breaking”. During this winter, daily electricity consumption was on an unsustainable maximum already in early November 2011, daily more than 140 million kWh.

During icy days in February 2012, despite a very expensive import and restrictions in the industrial sector, as well as in some public institutions, consumption was permanently above 150 million kWh. Regardless of the extraordinary difficult climate conditions this year, there are usually huge seasonal fluctuations in electric power consumption. Because of that the households as major consumers are motivated to use electricity for heating, as the cheapest form of heating in a large part of local communities. The energy intensity of Serbia can be measured only with the former Soviet Union countries, which are extremely rich in energy (Figure 4.)

Energy security is also important as one of the key indicators of the sustainability of society, economy and ecosystem. In our country, it is under constant pressure of bad heritage and the problematic structure of primary sources and distribution, and consumption of energy in general (Janjic, 2011).

Environmental sustainability at the greatest shock

General ecological conditions i. e. environmental and natural resources in Serbia as the most vulnerable area of sustainability are under constant pressure from the crisis. Here are some examples:

1. In recent years, fewer and fewer funds are allocated in Serbia for environmental protection. According to the UNECE in (2007) environmental legislation in Serbia was „complicated, fragmented and dispersed” since „many required sectored permits are issued by ministries separately, while integrated permits have not been implemented yet”. Things in this regard are absolutely not improved.

2. According to the plans and projections in the same report, it was stated that Serbia spent 0.6 percent of GDP for environmental protection in 2007, for 2009, it was planned 0.9 percent, while for 2012 the plan was 2.6 percent, and for 2015 even 2.4 percent of GDP. The budget rebalance in 2011 says the opposite.

3. State of pollution by sectors shows the following:
   • Air pollution is under constant pressure from the „dirty“ energy that actually must function at existing and unsustainable ways, with the dominance of thermal
power plants that burn mostly bad, and „dirty“ lignite. Air pollution is also under pressure of risky traffic, as well as „dirty“ chemical and metallurgical plants, refineries, etc..

- Water pollution is one of the most pressing, multidimensional problems of economic, organizational and technological nature, but it is certain that ¾ municipalities in Serbia has no device for purification, and only 1 percent have solved the problem of complete chemical - mechanical and bio purification (including tertiary treatment) (Djukic 2008a: 133-148)

- Land in Serbia is under pressure from devastation and eco-degradation, actually without strategy of sustainability management, so this problem is in the shadow of the unrestricted and unplanned use of the land, erosion, chemical and other pollution.

- Out of the total waste in Serbia, only few per mill is treated on sustainable way, because Serbia practically has no separation and waste reduction at source. Serbia also doesn’t have recycling or proper disposal centres of already selected waste, and a few sanitary landfills do not represent a significant amount of waste measured by amount of bulk and so-called illegal dumps (Djukic 2011b)

**Sustainable development and crisis as an obstruction or an opportunity**

It can not be claimed, by any means, that the economic crisis does not jeopardize the cardinal principles of all strategic development documents, including the concept and practice of sustainable development. Since each of the assumptions is related to some current circumstances, the practice and theory of sustainable growth are also caused by current economic performances and trends which, in the short and long term, depend on many determinants that can not be totally predicted.

**The European dimension**

However, sustainability as a category refers precisely to the reaction of system in crisis situations. Does the company, city, transport system or energy function in conditions of natural disaster, or even wars?

That question was almost always seen as the key problem of social order and organization i.e. of society preparation for an emergency. However, current position from the standpoint of theory and practice of sustainable development requires that the global crisis, as the emergency situation in all respects, to be considered as sufficient reason to adopt another concept harmonized with the principle of intergeneration justice.

This is the exact way how the crisis is trying to be treated by responsible societies and organizations, which are looking for some kind of sustainable response to current challenges. European Commission is resolute: "The crisis exposed fundamental problems and unsustainable trends in many European countries. It also made clear just how interdependent the EU’s economies are. Greater economic policy coordination across the EU will help us to address these problems and boost growth and job creation in future" (*Europa 2020*).
Responsible governments, and companies, NGOs and international institutions are doing just so. It is understandable that their own answers offer not only UN, EU, G-20 but also those fierce critics of the current market and „globalization“ of world order, economy, politics and social relations, either being on the left or right position.

The European Union is trying to get out of the current crisis stronger that it did at the end of the crisis from the thirties of the twentieth century, which was the most destructive crisis ever recorded. In this sense, new European strategy promotes the following aims which Europe 2020 should develop:

- „Smart growth“ (education, knowledge and innovation);
- "Sustainable growth" (greater efficiency of resources, greener and more competitive economy) and
- "Inclusive growth" (higher employment, and economic, social and territorial cohesion)

Such a vision of the European social-market economy of the 21st century has been built on the partnership between European Commission and member states. While member states set national targets, identifying growth disorders and set policy for them, the Commission evaluates the progress, give policy recommendations and develop an initiative to stimulate sustainable growth and employment at the EU level (Europe 2020).

Reply of Serbia

Maybe today’s Serbia is economically too weak and tired for progress in the design of post-crisis flows, the structural changes that inevitably follow and sustainability of its system and development in general. Perhaps the European goals such as a smart, sustainable and socially inclusive growth are unknown for Serbia, full of threatening and shocking data on ten percent poverty and unemployment of about 24 percent. Is it possible even in a crisis to talk about establishing a new sustainable system of functioning the economy and society, based on the rule of institutions, better education, culture?

On many questions of similar meaning one can only look for more or less bad or acceptable answers in the circumstances of drastic deepening of the crisis. But that does not mean that these issues should be postponed for better times. Serbia had the misfortune to have been effectively insulated from the global trends that have led to the sustainability, both from any reform cuts in countries in transition, and from the world growth moving towards the knowledge-based economy in the last decade of the twentieth and early twenty-first century. Political heritage, market disintegration of Yugoslavia, the sanctions of the international community, and finally the NATO bombing, and then the crisis related to the transformation of the system and the assassination of the Prime Minister of the first democratic government – all this took valuable time and depressed the qualitative development resources of the country.

And just when a more dynamic period of growth had started, linked to a greater inflow of foreign investment in the conditions of world economic conjuncture 2004-2008, it came shock caused by the global and national economic crisis. In this attack have appeared all cracks of prior bad heritage and bad carried out institutional reforms. Serbia has been
grabbed by macroeconomic and financial instability in a recession period, and thus had weaker and weaker prerequisites for sustainable development.

However, that has not brought into question, by no means, all the opportunities for using at least the principle of "step-by-step" towards sustainability, which is implicitly given in the National Strategy and advocated by the author of this paper.

One of the huge problems is that the National Strategy of Sustainable Development was adopted in early May 2008, and the signs of severe recession have shown in the third quarter of that year, so almost all quantitative projections regarding the allocation and expenditure for the "sustainability" had to fall in deep waters.

Then, since 2009, almost all short-term projections have been directed towards increasing production and employment, regardless to environmental and other developmental consequences. Thus, for example, in the revision of the budget for 2012, all development items were actually over budget for except for one position. Authorities did not expend the funds provided for environmental and natural resources and during analysis and explanation in Parliament, it was said that the authorities did not know how to use the funds, and if so, the funds were not even necessary”. The second effect is, due to the structure of the line Ministry for Regional Planning, Mining and the Environment, that these funds were diverted to the subsidies for construction of housing – that is to recruit people and capital in a crisis, regardless of the outcomes and economic efficiency.

Another huge problem for the strategic positioning of sustainable development in Serbia is that the National Strategy for Sustainable Development itself, which was to serve as an umbrella development document, was adopted quite late, when many of the sector strategies had already existed: for example, the Energy Development Strategy until 2014, Strategy for Combating Poverty, Strategy to Joining the EU and so on.

Space for action in crisis

Necessary systematic measures to be applied in times of crisis as soon as possible could be roughly divided into the followings: economic, organizational, technological fields. Those relating to education and encouragement of knowledge-based economy.

1. Economic measures (and the factors) of the sustainability make a wide range from already heavily used instruments concerning the reduction of anthropogenic pressures on the environment (reclamation of devastated agriculture and industrial land, clearing irrigation channels, the regulation and elimination of illegal dumps), to simplification of the financial support to many projects of energy efficiency, recycling and dematerialization of production, or incentives for cleaner production, and those actions that produce quick effects through the application of the principle of "polluter pays" and so on. It is understandable that without usual economic instruments, based on the internalization of externalities, either through economic prices and energy market, or through a restructuring process of large systems with strong external effects, Serbia can not significantly move its position to the sustainability of agriculture, energy, tourism, and industry.

2. Organizational measures, on the one hand, should be used as administrative measures concerning public procurement, which should be better controlled, however limited due to the effects of the crisis, not only to prevent corruption, but also because of preference of so-
called "green" public expenditures. On the other hand, the organization of cleaning and restoration of degraded areas would have to be delegated to responsible and competent professionals who would support the partnership of private and public sector. Organization of the measures and actions for sustainable development is not just about the nation but also about the regions. That is the way in which treatment of waste should be interpreted, as well as realizing unique strategies of fighting for cleaner Balkan space, waterways, air and environmental quality of the food.

3. Technological incentives to sustainability, of course, are worthless without economic stimulus (especially without the application of the principle of "polluter pays"). Legal, financial and other incentives to "green" technologies are very important as well as researches related to energy efficiency. The so-called "green economy" is not just a platitude but a matter of the organized measures of the state, business sector and NGOs.

4. Finally, the crisis in Serbia should be the trigger to start building a different system of education, which would increase the level of usable knowledge in the economy as well as in sustainable development in general, through a serious related activities: from the education system and science, to learning and education to work, training and retraining for the workforce in the new conditions. Knowledge is a factor of production with very positive externalities. It will become, from day to day, in Serbia and abroad, all the more important determinant of competitiveness of national economies and thus sustainability of their economic and social systems.

Concluding remarks

It is the present state of Serbia in a world full of contradictions and threatening tendencies (of terrorism, extending crisis and severe consequences of climate change) that would have to give rise to strategic confrontation of attitudes and compliance of concepts for sustainable management in the crisis and aftermath. "Green economy" is not just a phrase for all those who are trying to show, even in a campaign of restructuring the public sector, how people still have a chance (even a minor chance) for employment after termination of (parts of) their respective companies.

That is an opportunity for the world, Europe, the Balkans and Serbia to become a better place for living. Environmental standards and sustainability criteria will assert itself, sooner or later, as one of the key assumptions of the business, production and export of goods and services. The European Union has paved its way to achieve sustainable energy, cleaner production, energy efficiency and social cohesion, not opposing environmental and social goals of economic efficiency. However, Europe 2020 does not have so ambitious starting position as the Lisbon Strategy, written for the prospects to 2010. Realism prevailed over rival ambitions.

In Serbia, things are largely different. The concept "Serbia 2020" proved to be too ambitious and completely useless, in fact even before its implementation. In the year of political elections all government strategies are actually in the shadow of inter-party struggle and cheap political propaganda. In fact, in that propaganda there is no single word about "sustainable development", but it is largely talked about a variety of "patents" for quick and permanent overcoming the crisis.
This paper is intended for those who strive for sustainability “step by step” as well as opportunities for the citizens of Serbia and the region of Southeast Europe to trace the different future in accordance with the interests of those who stay and come into this world, with all its advantages, disadvantages and limitations.

References

**Act on Amending the Budget of the Republic Serbia for 2011.**


**Djukic, M. Petar.** 2011. *Sustainable Development - Utopia or Chance for Serbia*, Belgrade: Faculty of Technology and Metallurgy, University of Belgrade (in Serbian only).


**Djukic, Petar M.** 2011b. *Sustainable Development - Utopia or Chance for Serbia*, Belgrade: Faculty of Technology and Metallurgy, University of Belgrade (in Serbian only).

**Djukic, Petar M.** 2011c. „Europe – Balkan – Serbia – in the Light of Sustainable Development Concept“. In *Balkan and EU*, ed. V. Vukotic, Belgrade: Institute of Social Sciences, pp. 159-168 (in Serbian only)


**Jovanovic Gavriloovic, Biljana.** 2006. “Sustainable Development – Essence of the Concept and Possibilities of Measuring”. In *Sustainable Development SCG – Institutional Adopting to EU...
REZIME – Ekonomska kriza ugrožava kardinalne postulate svih strateških razvojnih dokumenata, pa i koncepta i prakse održivog razvoja. Njegovu realizaciju po definiciji je uslovjena aktuelnim ekonomskim rezultatima i tokovima koje, na kratak i srednji rok, određuju mnoge determinante koje u celini nije moguće predvideti.

Međutim, održivost kao kompleksna kategorija odnosi se i na reakcije sistema u kriznim situacijama. Da li društvo, grad, saobraćajni sistem ili energetika funkcionišu u uslovima prirodnih katastrofa, pa i ratova - to se odvek smatralo ključnim pitanjima društvenog uređenja i organizacije, odnosno pripreme društva za vanredne situacije, pa se ne može u strogom smislu dovesti u kontekst održivosti.

Koncept održivog razvoja podrazumeva mirnodopsko i kooperativno stanje, ali ne bi trebalo da isključi mogućnost reakcije na vanredne situacije. Šta više, održivi razvoj i jeste svojstvo društvenog sistema da lakše prevazilazi krizna stanja, ali i da ne skrene aktuelne privredne tokove i socio-političke procese sa pravca koji na dugi rok obezbeđuje socijalnu i ekološku usklađenost sa ekonomsko-tehnološkim postupcima i načinom života ljudi. Svetska ekonomska kriza nametnula je prioritet kratkoročne ciljeve kao što su rast proizvodnje, investicija i zaposlenosti, a ne retko i opstanak čitavih nacionalnih privreda i regiona, monetarnih zona i drugih zajednica. Srbija je u teškim izazovima koji se tiču održivosti ekonomskog rasta ali se, uprkos nobicajenim shvatanjima, pred njom ukazuju šanse jednog drugačijeg modela rasta i razvoja, zasnovanog na novim strukturnim pretpostavkama i prilikama koje se pružaju kroz “zelenu” ekonomiju, nove “zelene” investicije, energetsku efikasnost, socijalnu i kulturnu inkluziju.

KLJUČNE REČI: globalna ekonomska kriza, održivi razvoj, ekonomska održivost, prioritet razvojnih ciljeva, zaposlenost, zelena ekonomija, energetska efikasnost, socijalna inkluzija

Article history: Received: 5 February 2012
Accepted: 17 June 2012